JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION

Published in Two Monthly Editions under Supervision of the Committee on Publications with the Approval of the Council

Committee on Publications

DON E. FRANCKE, *Chairman*

ROBERT P. FISCHELIS
JOHN B. HEINZ
R. Q. RICHARDS
HUGO H. SCHAEFER

SCIENTIFIC EDITION

Editor

JUSTIN L. POWERS

INDEX TO VOLUME XLIV

INDEX TO AUTHORS
INDEX TO SUBJECTS

JANUARY TO DECEMBER, 1955

AUTHOR INDEX

A

Abbott, D. D., and Reber, L. A., an improved assay for magnesium citrate solution, 287
Alami, R. R., Christensen, B. V., and Beal, J. L., a note on the alkaloidal ratios in certain species of Datura, 710
Albers, C. C., *see* Jones, M. J., 100
Albrecht, R., *see* McCallum, A., 83
Al-Jaleel, H. H., *see* Hager, G. P., 654
Ailawala, N., *see* Way, E. L., 65
Alpert, A., and Ramstad, E., a preliminary study of the hydrolytic products of gentiopicrin by paper chromatography, 340
Anderson, A. B., *see* Kritchevsky, G., 535
Anderson, F. E., and Gelblum, E., a note on the preparation of a cyclic acetal from chloral and glucuronolactone, 127
—— *see* Leonard, F., 249
Anderson, R. C., Harris, P. N., and Chen, K. K., further toxicological studies with Ilotycin®, (Erythromycin, Lilly), 199
Arnow, P., *see* Theimer, E. E., 381
Arumbulo, A. S., *see* Raff, A. M., 290
Avasthi, B. K., and Tewari, J. D., a preliminary phytochemical investigation of *Desmodium gangeticum* DC, I, 625
—— chemical investigation of *Desdimodium gangeticum*, II. Chemical constitution of the lactone, 628
Avis, K. E., and Gershenfeld, L., bacteria-excluding filters for oils, 682

B

Baibaa, S. I., and Johnson, C. H., the microscopic structure of lemongrass leaves, 89
Bandelin, F. J., and Tuschhoff, J. V., the stability of ascorbic acid in various liquid media, 241
Banes, D., the identification and determination of reserpine in tablets, 408
—— Carol, J., and Wolff, J., the chromatographic analysis of reserpine preparations, 640
—— *see* Sanders, P. M., 727
Banziger, R. F., Miya, T. S., and Edwards, L. D., a pharmacological study of 2-(*beta*-hydroxyethylaminomethyl)-1,4-benzodioxane hydrochloride, 302
Barber, R. H., *see* Bhatia, V. N., 342
Barker, D. Y., and Christian, J. E., the synthesis of C^{14} carbonyl labeled dimethyl plthalate, 105
Barnes, B. A., and Fox, L. E., screening some thiuram disulfides and related compounds for acute toxicity and Antabuse-like activity, 756
Barr, M., *see* Bernstein, H. B., 375
—— *see* Evcim, N., 570
—— *see* Katz, M., 419, 472, 476
Bartelt, W. F., and Hamlow, E. E., the determination of reserpine by chromatographic separation from pharmaceutical products, 660
Bay, P. G., and Gisvold, O., the synthesis of some 4-carbobenzoxy-3-alkoxy benzamidine hydrochlorides and other amidines, 585
Beal, H. M., and Skauen, D. M., a study of emulsification with ultrasonic waves. I, 487. II, 490
Beal, J. L., *see* Alami, R. R., 710
Becker, C. H., *see* McLaughlin, B. L., 114, 118, 120
Bernstein, H. B., and Barr, M., thixotropic measurements of bentonite suspensions, 375
Bhatia, V. N., and Barber, R. H., the effect of *p*H variations of ointment bases on the local anesthetic activity of incorporated ethyl aminobenzoate. I. Hydrophilic ointment U. S. P., 342
Biles, J. A., the optical crystallographic properties of some N. F. X substances, 74
Black, N., *see* Harrisson, J. W. E., 123
Boblitt, R., and Gisvold, O., the synthesis of some new alkyl *p*-N-alkyl amidinobenzoates, 78
Bodin, J. I., and Taub, A., polyethylene glycol 400 as a stabilizing solvent in parenteral pentobarbital sodium solutions, 296
Bollinger, F. W., a note on the optical rotation of narcotine, 580
Bond, H. E., *see* Brown, C. H., 591
Booth, R. E., *see* Dale, J. K., 170
—— determination of reserpine in pharmaceutical preparations, 568
—— and Dale, J. K., a study of antacids. II. Comparative evaluation by various methods, 694
Bope, F. W., *see* Robinette, M. L., Jr., 32
Borick, P. M., *see* Reisner, D. B., 148
Brickley, H. W., and Whipple, F. A., a suggested improvement in the U. S. P. method for determining morphine in opium, 538
Britton, S. B., and Nobles, W. L., 5-chloro-2-thienyl-*β*-dialkylaminoethyl ketones and related compounds, 717
Brockemeyer, E. W., and Guth, E. P., a measurement of the efficiency of ointment bases in releasing a local anesthetic, 706
Brodie, D. A., Tye, A., and Nelson, J. W., anti-Metrazol® efficacy of combinations of Meparfynol and anticonvulsant drugs, 59
Broomfield, E., *see* Knowlden, N., 231
Brown, C. H., Bond, H. E., Peoples, S. A., and Sah, P. P. T., isonicotinyl hydrazones from D-mannuronolactone and D-mannuronic acid, 591
Buchter, J., *see* McCallum, A., 83
Buckley, J. P., Coker, S. T., and Goldfield, R., a pharmacological investigation of the seeds of *Pyrularia pubera* Michx., 247
Burckhalter, J. H., and Scarborough, H. C., the synthesis of uracils as anticonvulsants, 545
Busse, L. E., *see* Nelson, E., 223
Butler, T. C., the effects of N-methylation in 5,5-disubstituted derivatives of barbituric acid, hydantoin, and 2,4-oxazolidinedione, 367

C

Caldwell, H. C., and Nobles, W. L., Mannich bases from 5-nitro-2-acetylfuran and 5-nitro-2-fural-acetone, 273
Campbell, J. A., the age of multivitamin products of the retail market, 598
—— and Christian, J. E., the effect of chlorophyllins on various odorants as measured by surface tension changes of liquids, 504
—— Christian, J. E., and Eaton, J. R., rapid surface tension determinations using a modified pendant drop technique, 501
—— *see* McLaughlan, J. M., 594
Campbell, J. S., and McLeod, H. A., the effect of shelf life on the potency of complex multivitamin preparations, 263
Cambosos, N. M., *see* Carlo, P.-Em., 396
Carew, D. P., and Quimby, M. W., a microscopic study of the leaf, stem, and root of *Pachyrrhizus erosus* (L.) urban, 431
Carlo, P.-Em., Cambosos, N. M., Feeney, G. C., and Smith, P. K., plasma levels after the oral administration of acetylsalicylic acid and N-acetyl-*p*-aminophenol in different forms to human subjects, 396
Carol, J., *see* Banes, D., 640
—— *see* Sanders, P. M., 727
Carpenter, C. P., *see* Smyth, H. F., Jr., 27
Carper, R. F., *see* Garrett, E. R., 515
deCastro, N. F., and Jannke, P. J., application of chromatography in the analysis of acorn oil, 281
Chadha, M. S., *see* Phillips, D. D., 553
Chamberlain, R. E., *see* Foye, W. O., 261
Charnicki, W. F., and Kober, M. L., buffered ophthalmic solutions of silver nitrate, 25
Chatten, L. G., *see* Levi, L., 61
—— *see* Pernarowski, M., 526
—— Crisafio, R., 529
—— Pernarowski, M., and Levi, L., the behavior of organic bases in nitromethane, 332
Chen, K. K., *see* Anderson, R. C., 199
—— *see* Powell, C. E., 196, 399
Chernick, W. S., *see* Harrisson, J. W. E., 123
Christensen, B. V., *see* Alami, R. R., 710
Christian, J. E., *see* Barker, D. Y., 105
—— *see* Campbell, J. A., 501, 504
—— *see* Gerding, P. W., 574
—— *see* Pinajian, J. J., 107, 631
—— *see* Sheinaus, H., 483
—— *see* Wuggatzer, W. L., 30, 645
Ciaccio, L. L., *see* McMullen W. H., 446
Clark, L., Heller, A., and Roth, L. J., the synthesis of *para*-aminosalicylic acid. I. The synthesis of C-14 carboxyl-labeled *p*-aminosalicylic acid, 328
Claus, E. P., a pharmacognostical study of *Pyrularia pubera* Michx., 39
Coker, S. T., *see* Buckley, J. P., 247
Collins, A. P., and Wiese, G. A., the synthesis and investigation of some ethylene bis-dithiocarbamate esters as fungicides, 310
Coppock, H. W., *see* Headlee, C. P., 229
Coran, A., *see* Zupko, A. G., 379
Correll, D. S., *see* Wall, M. E., 438
Cosgrove, F. P., *see* Demaree, G. E., 619
—— *see* Puls, D. D., 85
Crisafio, R., and Chatten, L. G., the application of nonaqueous titrimetry to the determinations of cholic, desoxycholic, and dehydrocholic acids, 529
Cross, J. M., Discher, C. A., and Iannarone, M., synthesis and antifungal properties of 6-halothymols, 637
Curlin, L. C., a note on tablet disintegration with starch, 16
Cwalina, G. E., *see* Faust, R. E., 234

D

Dale, J. K., and Booth, R. E., a study of antacids, 170
—— *see* Booth, R. E., 694
Daniels, T. C., see Way, E. L., 65
Deardorff, D. L., *see* Raff, A. M., 290
Dechene, E. B., a fluorometric assay of reserpine, 657
Deeb, E. N., and Vitagliano, G. R., the blood level determinations of PAS and isoniazid with vanillin, 182
Dehner, E. J., *see* Monaco, A. L., 237
Demaree, G. E., Sjogren, S. W., McCashland, B. W., and Cosgrove, F. P., preliminary studies on the effect of feeding sorbic acid upon the growth, reproduction, and cellular metabolism of albino rats, 619
Demoen, P., *see* Janssen, P., 465
Denzopf, J. G., *see* Hidalgo, J., 384
Derby, J. V., Jr., *see* DeWitt, J. B., 22
DeWitt, J. B., Derby, J. V., Jr., and Mangan, G. F., Jr., DDT vs. wildlife, relationships between quantities ingested, toxic effects, and tissue storage, 22
Discher, C. A., *see* Cross, J. M., 637
Djao, E. H., and Youngken, H. W., Jr., a study of carbon^{14} labeled acetate in *Digitalis purpurea* glycoside biosynthesis, 321
Doerge, R. F., *see* Schwartz, H. F., 80
Doran, W. J., *see* Swanson, E. E., 152
Drekter, L., *see* De Ritter, E., 1
Dyer, M. S., and McBay, A. J., spectrophotometric determination of the principal alkaloids of opium, 156

E

Eaton, J. R., *see* Campbell, J. A., 501
Edwards, L. D., *see* Banziger, R. F., 302
—— *see* Gibson, R. D., 605
—— *see* Headlee, C. P., 743

Evcim, N., and Barr, M., adsorption of some alkaloids by different clays, 570

F

Fahey, M. D., and Kurth, E. F., composition of the volatile oil from the foliage and terminal branches of western juniper, 87
Faust, R. E., and Cwalina, G. E., some chemical effects of focused ultrasound on glutathione and other compounds, 234
Feeney, G. C., *see* Carlo, P.-Em., 396
Feldman, E. G., *see* Foye, W. O., 467
Feller, B. A., *see* Macek, T. J., 254
—— and Macek, T. J., effect of thimine hydrochloride on the stability of solutions of crystalline vitamin B12, 662
Fenske, G. S., *see* Wall, M. E., 438
Ferguson, H. C., the preliminary investigation of an extract of the root of *Cucurbita foetidissima*, 440
Fischbach, H., *see* Levine, J., 543, 713
Fischer, L., and Hall, N. A., tests for rosin in official pharmaceuticals, 150
Fischer, W. H. A., and Plein, E. M., identification of some sympathomimetic amines, 313
Fitzgerald, B. W., and Skauen, D. M., an evaluation of the emulsifying properties of carrageenin, 358
Foote, P. A., *see* Lauter, W. M., 361
—— *see* Wintter, J. E., 48
Foss, N. E., *see* Swartz, C. J., 217
Fox, L. E., *see* Barnes, B. A., 756
—— *see* Grote, I. W., 219
Foye, W. O., metal chelates and antitubercular activity. II. *p*-aminosalicylic acid, 415
—— and Feldman, E. G., glucose ester derivatives of aminosalicylic acids, 467
—— and Jeffrey, J. G., metal chelates and antitubercular activity. I. *o*-hydroxyaryo naphthols and phenanthrols, 257
—— Lange, W. E., Swintosky, J. V., Chamberlain, R. E., and Guarini, J. R., metal chelates of streptomycin, 261
—— and Mode, R. A., mercurated amides of *alpha*-amino acids, 76

G

Galysh, F. T., Tye, A., and Nelson J. W., a quantal method for the study of tolerance to analgesics, 601
Di Gangi, F. E., antispasmodics II. Synthesis of some beta-dialkylaminopropionanilides, 135
Garrett, E. R., and Carper, R. F., prediction of stability in pharmaceutical preparations. I. Color stability in a liquid multisulfa preparation, 515
Gelblum, E., *see* Anderson, P. E., 127
Gentry, H. S., *see* Wall, M. E., 438
Gerding, P. W., Sperandio, G. J., and Christian, J. E., the retention of an insect repellent in emulsified bases at the site of application, 574
Gershenfeld, L., *see* Avis, K. E., 682
—— iodine as a virucidal agent, 177
Gibson, R. D., Miya, T. S., and Edwards, L. D., a biological method for the evaluation of the nonnarcotic analgesics, 605
Gibson, W. R., *see* Swanson, E. E., 152
Gisvold, O., *see* Bay, P. G., 585
—— *see* Boblitt, R., 78
Gjerstad, G., *see* Ramstad, E., 741
—— and Ramstad, E., influence of certain chemicals on the growth and alkaloid formation of *Claviceps purpurea* (Fries) Tulasne in artificial culture, 736
Goldberg, A., *see* Leonard, F., 249
Goldfield, R., *see* Buckley, J. P., 247
Gottschall, R. Y., Hill, E., Ozolins, Z., a method for removal of blood group A from pepsin, 630
Goyan, F. M., and Reck, D., a study of thermoelectric methods for determining isotonicity, 43
Grant, E. W., and Kennedy, E. E., methods for the determination of protoveratrine, 129
Green, M. W., a note on the use of triangle design in taste testing of pharmaceutical preparations, 380
Grenfell, T. C., *see* McMullen, W. H., 446
Griffin, J. C., and Huyck, C. L., recently developed granulating agents and their effect on disintegration, 251
Gross, H. M., bacitracin I. Review of pharmaceutical, chemical, and assay literature, 700. II. Stability characteristics, 704
—— *see* Lafferty, G. J., 211
Grote, I. W., *see* Holbert, J. M., 355
—— Holbert, J. M., and Fox, M., studies on antacids. V. The preparation and properties of dihydroxy aluminum sodium carbonate, 219
—— and Woods, M., beta-phenylethyl alcohol as a preservative for ophthalmic solutions, 9
Grundy, W. E., *see* Rdzok, E. J., 613
Guarini, J. R., *see* Foye, W. O., 261
Guth, E. P., *see* Brockemeyer, E. W., 706
Guth, P. S., *see* Harrisson, J. W. E., 123
Guttman, D. E., and Higuchi, T., study of possible complex formation between macromolecules and certain pharmaceuticals IX. Formation of iodine-iodide complexes with polyethylene glycol, 668

H

Hager, G. P., and Al-Jaleel, H. H., N,N-dialkylenetriamines and corresponding imidazolines, 654
—— and Hanker, J. S., the structure of substances which affect the autonomic nervous system, II. Amino-vinyl ketones, 138
—— and Kaiser, C., oxazolopyrimidine and thiazolopyrimidine derivatives related to the xanthines, 193
—— and Kramer, S. P., arylketones and thiomorpholides in the synthesis of 8-substituted-xanthines, 649
Haley, T. J., and Keenan, G. L., microtoxicology XI. Identification and differentiation of seven new synthetic antispasmodics, 54
Hall, N. A., *see* Fischer, L., 150
—— *see* Varma, K. C., 336, 611
Hamlow, E. E., *see* Bartelt, W. F., 660
Hanker, J. S., *see* Hager, G. P., 138
Harris, P. N., *see* Anderson, R. C., 199
Harrisson, J. W. E., Packman, E. W., Guth, P. S., Black, N., and Churnick, W. S., effect of carbonic anhydrase inhibitors and antacids on the development of gastrointestinal ulcers during treatment with depot-histamine—a preliminary report, 123
—— Packman, E. W., Smith, E., Hosansky, N., and Salkin, R., toxicity and chemistry of 11-desmethoxyreserpine, (Raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate) an alkaloid from *Rauwolfia canescens* I, 688
Harvey, S. C., and Nickerson, M., a note on the aqueous solubilities of Dibenamine and Dibenzyline hydrochloride, 126
Harwood, A. A., *see* Rowe, E. J., 308
Headlee, C. P., Coppock, H. W., and Nichols, J. R., apparatus and technique involved in a laboratory method of detecting the addictiveness of drugs, 229
—— and Edwards, L. D., a pharmacological study of certain basic derivatives of ethyl diphenylacetate, 743
—— and Keith, J. H., some pharmacological properties of phenyl *alpha*-naphthyl ketimine, 325
Hefferren, J. J., Schrotenboer, G., and Wolman, W., preparation and properties of citric and tartaric acid salts of piperazine, 678
Helgren, F. J., Lynch, M. J., and Kirchmeyer, F. J., a taste panel study of the saccharin "off-taste," 353
—— *see* Vincent, H. C., 442
Heller, A., *see* Clark, L., 328
Hernan, J., *see* Knowlden, N., 231
Hershenson, H., and Smith, D. F., production control of polyethectrolyte parenterals with a flame photometer, 731
Hidalgo, J., and Seeberg, V. P., a note on serum levels and excretion of salicylamide in man, 384
Higuchi, T., *see* Guttman, D. E., 668
—— and Lachman, L., inhibition of hydrolysis of esters in solution by formation of complexes. I. Stabilization of benzocaine with caffeine, 521
—— *see* Nelson, E., 223
—— *see* Parrott, E. L., 269
Hill, E., *see* Gottshall, R. Y., 630
—— *see* Grote, I. W., 219
—— Grote, I. W., and Smith, H., some new soluble salts of 8-bromotheophylline, 355
Hoppe, J. O., *see* Luduena, F. P., 393
Horn, H., *see* Leonard, F., 249
Hosansky, N., *see* Harrisson, J. W. E., 688
—— and Smith, E., raunescine and isoraunescine from *Rauwolfia canescens* L., 639
Husa, W. J., *see* Littlejohn, O. M., 305
Huyck, C. L., *see* Griffin, J. C., 251
—— *see* Zimmer, A. J., 344

I

Iannarone, M., *see* Cross, J. M., 637
Iloff, P. M., *see* Mirov, N. T., 186, 424
Ishadate, M., Sakurai, Y., and Izumi, M., N-bis(β-chloroethyl)amino acids and related compounds as tumor-growth retarding agents, 132
Izumi, M., *see* Ishidate, M., 132

J

Jahns, F. W., *see* De Ritter, E., 1
James, A. E., *see* Platt, H., 666
—— *see* Ravin, L. J., 215
Jannke, P. J., *see* deCastro, N. F., 281
—— *see* Moody, J. E., 316
—— *see* Urdang, A., 747
Janssen, P., Zivkovic, D., and Demoen, P., antispasmodics. II. α-Amino-o-pyridylacetonitriles and derivatives, 465
Jeffrey, J. G., *see* Foye, W. O., 257
Johl, R. G., *see* Mader, W. J., 577
Johnson, C. H., *see* Balbaa, S. I., 89
—— *see* Nunez-Melendez, E., 349
Jones, D. D., and Tyler, V. E., Jr., the pharmacognosy of smooth brome ergot, 480
Jones, M. J., and Albers, C. C., further studies of Texas Plantago seeds, 100

K

Kaiser, C., *see* Hager, G. P., 193
Katz, M., and Barr, M., a study of sublingual absorption. I. Several factors influencing the rate of absorption, 419. II. Striated muscle relaxants and neurovegetative blocking agents, 472. III. A comparison of sublingual absorption from various tablet bases, 476
—— Klioze, O., and P'an, S. Y., a study of parenteral oxytetracycline and tetracycline, 751
Kaufman, A. M., *see* Swintosky, J. V., 540
Keenan, G. L., *see* Haley, T. J., 54
Keith, J. H., *see* Headlee, C. P., 325
Kennedy, E. E., *see* Grant, E. W., 129
Kennon, L., *see* Swintosky, J. V., 109, 112
Keplinger, M. L., *see* Wenzel, D. G., 56
King, E. P., *see* Lappas, L. C., 164
Kirchmeyer, F. J., *see* Halgren F. J., 353
—— *see* Rdzok, E. J., 613
—— *see* Vincent, H. C., 442
Kleckner, L. J., and Osol, A., ultraviolet absorption spectra of antihistaminic agents, 762
Klioze, O., *see* Katz, M., 751
Knowlden, N., Broomfield, E., and Hernan, J., interference of sucrose in the plate assay of Polymyxin B, 231
Kober, M. L., and **Charwicke, W. F.,** buffered ophthalmic solutions of silver nitrate, 25
Koerner, W. E., *see* Speziale, A. J., 617
Koff, A., *see* Neesby, T. E., 383
Koistad, C. K., and Lee, C. O., the relative efficacy of various ointment bases as antiseptic vehicles, 5
Koppanyi, T., Morgan, C. F., and Princiotto, J. V., essential elimination of sodium cycloheptenylethylbarbiturate (Medomin®) in rabbits, 221
Kosinski, R. E., *see* Perlman, P. L., 69
Kramer, S. P., *see* Hager, G. P., 649

Kritchevsky, G., and Anderson, A. B., composition of the volatile oil from *Chamaecyparis lawsoniana* stump heartwood, 535
Krook, D., and Miller, C. E., 2-nitro-2-methyl-propyl carbamate, 99
Kurth, E. F., *see* Fahey, M. D., 87

L

Lachman, L., *see* Higuchi, L. T., 521
Lafferty, G. J., and Gross, H. M., application of the Hegman guage to medicinal particle fineness in ointments, 211
Lange, W. E., *see* Foye, W. O., 261
Lappas, L. C., and King, E. P., a study of the reproducibility of viscosity determinations using gelatin sols, 164
Lauter, W. M., and Foote, P. A., investigation of the toxic principles of *Hippomane mancinella* L. II. Preliminary isolation of a toxic principle of the fruit, 361
—— *see* Wintter, J. E., 48
Lawrence, C. A., an evaluation of chemical preservatives for ophthalmic solutions, 457
Lee, C. O., *see* Kolsatd, C. K., 5,
—— *see* Sheinaus, H., 7
Lehrman, G. P., Ramstad, E., and Zarrow, M. X., purification of relaxin by ion exchange resins, 206
Leonard, F., Horn, H., Anderson, F. E., and Goldberg, A., basically substituted 5-benzylpyrimidines, 249
Lindgren, L. F., *see* Puls, D. D., 85
Little, J. M., *see* Truitt, E. B., Jr., 142
Littlejohn, O. M., and Husa, W. J., the potentizing effect of antimolding agents in syrups, 305
Levi, L., Chatten, L. G., and Pernarowski, M., a note on the use of Amberlite® IRC-50 for the purification of nonaqueous solvents, 61
—— *see* Chatten, L. G., 332
Levine, J., and Fischbach, H., the determination of protoverastrine, 713
—— and Fischbach, H., paper chromatography of several veratrum alkaloids, 543
Luduena, F. P., and Hoppe, J. O., corneal activity and toxicity of some alkoxy analogs of Thiocaine® and related compounds, 393
——Miller, E., and Wilt, W. A., a new perfusion apparatus for the study of the effects of drugs on the coronary vessels, 363
Lynch, M. J., *see* Helgrenn, F. J., 353
—— *see* Vincent, H. C., 442
Lynn, E. V., *see* Shangraw, R. F., 38

M

Macek, T. J., and Feller, B. A., a note on stability of the B vitamins in solutions—crystalline vitamin B_{12}, 254
—— *see* Feller, B. A., 662
Mader, W. J., and Johl, R. G., countercurrent analysis of vitamin B_{12}, 577
—— *see* Saalkowski, C. R., 533
Mangan, G. F., Jr., *see* DeWitt, J. B., 22
Mansur, K., *see* Zimmer, A. J., 204
Mattocks, A. M., *see* Ribeiro, D., 226
McBay, A. J., *see* Dyer, M. S., 156
McCallum, A., Buchter, J., and Albrecht, R., comparison and correlation of the Strong Cobb and the Monsanto tablet hardness testers, 83
McCashland, B. W., *see* Demaree, G. E., 619
McLaughlan, J. M., Rogers, C. G., and Campbell, J. A., the influence of thiamine on the microbiological assay for vitamin B_{12} with *Escherichia coli* 113-3, 594
McLaughlin, B. L., and Becker, C. H., the use of some imitation flavors for masking distasteful drugs V. Aureomycin hydrochloride, 114., VI. Penicillin G potassium, 118., VII. Terramycin hydrochloride, 120
McLeod, H. A., *see* Campbell, J. S., 263
McMullen, W. H., Pazdera, H. J., Missan, S. R., Ciaccio, L. L., and Grenfell, T. G., analytical methods for reserpine, 446
Meyer, F. C., *see* Speziale, A. J., 617
Miller, C. E., *see* Krook, D., 99
Miller, E., *see* Luduena, F. P., 363
Milosovich, G., *see* Ribeiro, D., 226
Mirov, N. T., and Iloff, P. M., Jr., composition of gum turpentines of pines, XXIII. A report on three Mediterranean species: *Pinus pinea* (cultivated in California), *P. halepensis* (from Israel) and *P. brutia* (from Cyprus), 186
—— XXIV. A report on two Asiatic pines: *Pinus armandi* and *P. bungeana*, 424
Missan, S. R., *see* McMullen, W. H., 446
Miya, T. S., *see* Banziger, R. F., 302
—— *see* Gibson, R. D., 606
Mode, R. A., *see* Foye, W. O., 76
Monaco, A. L., and Dehner, E. J., an *in vitro* evaluation of some hydrophilic colloids as bulking agents, 237
Moody, J. E., and Jannke, P. J., a note on derivatives of *p*-thymotic alcohol, 316
Morgan, A. N., *see* Truitt, E. B., Jr., 142
Morgan, C. F., *see* Koppanyi, T., 221
Munch, J. C., pressor drugs, III. Safety of inhalational therapy, 208
Munch, R. H., *see* Speziale, A. J., 617
Murphy, J. E., diginatin—a new cardioactive glycoside from *Digitalis lanata*, 719
Myers, D. B., *see* Rowe, E. J., 308

N

Neesby, T. E., Koff, A., and Pircio, A. W., a preliminary note on the absorption of sulfur and the polythionates into intact skin, 383
Nelson, E., measurement of the repose angle of a tablet granulation, 435
—— the physics of tablet compression. VIII. Some preliminary measurements of die wall pressure during tablet compression, 494
—— Busse, L. W., and Higuchi, T., the physics of tablet compression. VII. Determination of energy expenditure in the tablet compression process, 223
Nelson, J. W., *see* Brodie, D. A., 59, *see* Galysh, F. T., 601
Nickerson, M., *see* Harvey, S. S., 126
Nichols, J. R. *see* Headlee, C. P., 229
Nobles, W. L., *see* Britton, S. B., 717
—— *see* Caldwell, H. C., 273
Nunez-Melendez, E., and Johnson, C. H., the structure and constituents of *Kleinia aizoides* DC, 349

O

O'Brien, J. E., and Thoms, R. K., the *in vitro* effect of sodium lauryl sulfate on vaginal pathogens, 245
Osol, A., *see* Kleckner, L. J., 762
—— *see* Sideri, C. N., 759
—— and Sideri, C. N., the identification of antihistaminic agents, 761
Ozolins, Z., *see* Gottshall, R. Y., 630

P

Packman, E. W., *see* Harrisson, J. W. E., 123, 688
P'an, S. Y., *see* Katz, M., 751
Parrott, E. L., Wurster, D. E., and Higuchi, T., investigation of drug release from solids. I. Some factors influencing the dissolution rate, 269
Pazdera, H. J., *see* McMullen, W. H., 446
Peng, C-T., *see* Way, E. L., 65
Peoples, S. A., *see* Brown, C. H., 591
Perkins, A. J., *see* Raff, A. M., 290
Perlman, P. L., Kosinski, R. E., and Sutter, D., studies on the absorption and excretion of a new cholecystographic agent, Teridax®, 69
Pernarowski, M., and Chatten, L. G., the stability of ephedrine in compound ephedrine spray N. F., 526
—— *see* Chatten, L. G., 332
—— *see* Levi, L., 61
Phillips, D. D., and Chadha, M. S., the alkaloids of *Rauwolfia serpentina* Benth, 553
Pinajian, J. J., and Christian, J. E., the assay of sodium radio-iodide (I^{131}) used for medicinal purposes, 631
—— and Christian, J. E., the determination of iodide-iodate activity in sodium radio-iodide (I^{131}) by automatic scanning of paper chromatograms, 107
Pircio, A. W., *see* Neesby, T. E., 383
Platt, H., and James, A. E., a spectrophotometric assay for terpin hydrate, 666
Plein, E. M., *see* Fischer, W. H. A., 313
Pohland, A., *see* Rose, C. L., 766
Pohley, F. M., *see* Vincent, H. C., 442
Popino, R. P., *see* Simone, R. M., 275
Powell, C. E., and Chen, K. K., the pharmacological action of chelerythrine, 196
—— Swanson, E. E., and Chen, K. K., the pharmacologic action of indole compounds, 399
Pratt, R., effect of glutathione on the response of *Escherichia coli* to penicillin, 621
Princiotto, J. V., *see* Koppanyi, T., 221
Prokop, L. D., *see* Zupko, A. G., 160
Puls, D. D., Lindgren, L. F., and Cosgrove, F. P., sorbic acid as a fungistatic agent for certain pharmaceutical preparations, 85
Putney, B. F., and Soine, T. O., a synthesis of pseudopelletierine, 17

Q

Quimby, M. W., *see* Carew, D. P., 431

R

Raff, A. M., Arambulo, A. S., Perkins, A. J., and Deardorff, D. L., compressed tablets: internal flow of granulation during compression, 290
Ramstad, E., *see* Alpert, A., 340
—— and Gjerstad, G., the parasitic growth of *Claviceps purpures* (Fries) Tulasne on rye and its relation to alkaloid formation, 741
—— *see* Gjerstad, G., 736
—— *see* Lehrman, G. P., 206
Rao, D. S., and Rao, S. B., a note on the alkaloids of *Rauwolfia micrantha* Hook. f., 253
Rao, S. B., *see* Rao, D. S., 253
Ravin, L. J., and James, A. E., a spectrophotometric assay for aureomycin hydrochloride, 215
Rdzok, E. J., Grundy, W. E., Kirchmeyer, F. J., and Sylvester, J. C., determining the efficacy of preservatives in pharmaceutical products, 613
Reber, L. A., *see* Abbott, D. D., 287
Reck, D., *see* Goyen, F. M., 43
Reisner, D. B., and Borick, P. M., N-(2 - hydroxy - 5 - chlorobenzylidine)-anilines and N-(2-hydroxy-5-chlorobenzyl)-anilines, 148
Ribeiro, D., Stevenson, D., Samyn, J., Milosovich, G., and Mattocks, A., M., the decomposition of aspirin in aspirin, phenacetin, and caffeine tablets, 226
Rising, L. W., *see* Varma, K. C., 336, 611
De Ritter, E., Scheiner, J., Jahns, F. W., Drekter, L., and Rubin, S. H., Synthetic riboflavin-5'-phosphate, 1.
Robinette, M. L., Jr., and Bope, F. W., preparation of 8-chlorotheophylline salts of some alkaloids, 32
Robbins, E. B., the pharmacologic effects of a new analgesic α-4-dimethylamino - 1,2 - diphenyl - 3 - methyl - 4-propionyloxybutane, 497
Rogers, C. G., *see* McLaughlan, J. M., 594
Rohatgi, S., the identification of digitoxin and digoxin from their acetyl compounds by means of paper chromatography, 428
Rose, C. L., Sullivan, M. R., and Pohland, A., local anesthetic agents: the chemistry and pharmacology of twelve carbamates, 766
Rose, H. A., crystallographic data for yohimbine, 414
Roth, L. J., *see* Clark, L., 328
Rowe, E. J., Harwood, A. A., and Myers, D. B., the isolation of three inositols from *Vernonia altissimia*, 308
Rubin, N., *see* Scheindlin, S., 330
Rubin, S. H., *see* DeRitter, E., 1

S

Sah, P. P. T., see Brown, C. H., 591
Sakurai, Y., *see* Ishadate, M., 132
Salkin, R., *see* Harrisson, J. W. E., 688
Samyn, J., *see* Ribeiro, D., 226
Sanders, P. M., Banes, D., and Carol, J., the analysis of conjugated estrogen preparations, 727

Scarborough, H. C., *see* Burckhalter, J. H., 545
Scheindlin, S., and Rubin, N., isolation of an alkaloid from *Vinca minor*, 330
Scheiner, J., *see* Dorfmitter, E., 1
Schneller, G. H., *see* Tansey, R. P., 34
Schoeb, E. J., *see* Scott, R. B., 377
Schrotenboer, G., *see* Hefferren, J. J., 678
Schubert, B. G., *see* Wall, M. E., 438
Schwartz, H. F., and Doerge, R. F., anticonvulsants—a study of some *alpha, alpha*-disubstituted malondiamides, 80
Sciarra, J. J., and Zapotocky, J. A., a study of methods of analysis for boric acid, I. Visual and potentiometric titration of boric acid, 370
—— II. Polarimetric analysis of boric acid, 373
Scott, R. B., Schoeb, E. J., and Vandenbelt, J. M., a physical method for the determination of hyoscine hydrobromide in a tablet mixture, 377
Seeberg, V. P., *see* Hidalgo, J., 384
Shangraw, R. F., and Lynn, E. V., the saponins of *Pachyrrhizus erosus* (L) urban, 38
Sheinaus, H., Christian, J. E., and Sperandio, G. J., the effect of topically applied hyaluronidase on cutaneous permeability to certain substances, 483
—— and Lee, C. O., an evaluation of the stability of buffered erythromycin ointments, 7
Sideri, C. N., and Osol, A., a nonaqueous titration assay for sodium carboxymethylcellulose, 759
—— *see* Osol, A., 761
Simone, R. M., and Popiel, R. P., the stability of neomycin in several pharmaceutical preparations, 275
Sjogren, D. W., *see* Demaree, G. E., 619
Skauen, D. M., *see* Beal, D., 487, 490
——*see* Fitzgerald, B. W., 358
Smith, D. F., *see* Hershenson, H., 731
Smith, E., *see* Harrisson, J. W. E., 688
—— *see* Hosansky, N., 639
Smith, H., *see* Holbert, J. M., 355
Smith, P. K., *see* Carlo, P.-Em., 396
Smyth, H. F., Jr., Carpenter, C. P. and Weil, C. S., the chronic oral toxicology of the polyethylene glycols, 27
Soine, T. O., *see* Putney, B. P., 17
Sperandio, G. J., *see* Gerding, P. W., 574
—— *see* Sheinaus, H., 483
Speziale, A. J., Koerner, W. E., Meyer, F. C., and Munch, R. H., tautomerism in solid secobarbital sodium, 617
Stevenson, D., *see* Ribeiro, D., 226
Strittmatter, D. A., a preliminary investigation of canna gum, 411
Subramanian, S., a review of anthraquinone compounds in lichens, 769
Sullivan, H. R., *see* Rose, C. L., 766
Sutter, D., *see* Perlman, P. L., 69
Swanson, E. E., Gibson, W. R., and Doran, W. J., the pharmacological relationship of a series of pentenyl substituted barbituric acid derivatives, 152
—— *see* Powell, C. E., 399
Swartz, C. J., and Foss, N. E., a potentiometric nonaqueous assay for barbiturates and their preparations, 217
Swintosky, J. V., *see* Foye, W. O., 261
—— and Kaufman, A. M., properties and applications of powdered polysaccharide acids, III. Inhibition of microbial growth by carboxymethylcellulose, 540
—— Kennon, L., and Tingstad, J., properties and applications of powdered polysaccaride acids, I. Preparation and titration curves, 109. II. Tablet studies, 112
Swoap, O. F., a collaborative study on the use of mice in acute toxicity testing, 11
Sylvester, J. C., *see* Rdzok, E. J., 613
Szalkowski, C. R., and Mader, W. J., determination of sodium carboxymethylcellulose, 533

T

Tansey, R. P., and Schneller, G. H., studies in the stabilization of folic acid in liquid pharmaceutical preparations, 34
Taub, A., *see* Bodin, J. I., 296
Tewari, J. D., *see* Avasthi, B. K., 625, 628
Theimer, E. E., and Arnow, P., a note, on a simple assay method for certain, mercurial diuretics, 381
Thoma, R. K., *see* O'Brien, J. E., 245
Tingstad, J., *see* Swintosky, J. V., 109, 112
Truitt, E. B., Jr., Morgan, A. M., and Little, J. M., determination of salicylic acid and two metabolites in plasma and urine using fluorimetry for directly measuring salicyluric acid, 142
—— a note on a modification of the Anderson-Craver perfusion apparatus for interchanging perfusion fluids, 382
Tsao, D. P. N., the influence of the rate of an intermittent administration upon the lethal dose of Digitalis tincture in pigeons, 338
Tye, A., *see* Brodie, D. A., 59,
——*see* Galyah, F. T., 601
Tyler, V. E., Jr., the effect of germination on the alkaloid content of *Nigella damascena* seed, 52
—— *see* Jones, D. D., 480
Tushhoff, J. V., *see* Bandelin, F. J., 241

U

Urdang, A., and Jannke, P., sulfur derivatives of *o*-thymotic acid, 747

V

Vandenbelt, J. M., *see* Scott, R. B., 377
Varma, K. C., Hall, N. A., and Rising, L. W., a study of anti-infectives in dermatologic emulsions. I. Factors affecting the release *in vitro* of certain anti-infectives from emulsons, 336. II. Stability in simple and compound emulsions, 611
Vincent, H. C., Lynch, M. J., Pohley, F. M., Helgren, F. J., and Kirchmeyer, F. J., a taste panel study of cyclamate-saccharin mixture and of its components, 442
Vitagliano, G. R., *see* Deeb, E. N., 182

W

Walker, D. F., a note on the preparation of vanillamidine hydrochloride hemihydrate, 580
Wall, M. E., Fenske, C. S., Willaman, J. J. Correll, D. S., Schubert, B. G., and Gentry, H. S., steroidal sapogenins. XXV. Survey of plants for steroidal sapogenins and other constituents, 438
Wasson, L. A., a comparative study of mineral oil separation in pharmaceutical emulsions, 284
Way, E. L., Peng, C-T, Allawala, N., and Daniels, T. C., the metabolism of *p*-aminosalicylic acid (PAS) in man, 65
Weil, C. S., *see* Smyth, H. F., Jr., 27
Welsh, L. H., the analysis of solutions of epinephrine and norepinephrine, 507
Wenzel, D. G., anticonvulsant activity of some uracils and related compounds, 550
—— and Keplinger, M. L., central depressant properties of uracil and related oxypyrimidines, 56
Whipple, F. A., *see* Brickley, H. W., 538
White, W. F., absorption of orally administered cardiac glycosides in cats, 607
Wiese, G. A., *see* Collins, A. P., 310
Willaman, J. J., some biological effects of the flavonoids, 404
—— *see* Wall, M. E., 438
Wilt, W. A., *see* Luduena, F. P., 363
Wintter, J. E., Lauter, W. M., and Foote, P. A., derivatives of alginic acid, 48
Wolff, J., *see* Banes, D., 640
Wolman, W., see Hefferren, J. J., 678
Woods, M., *see* Grote, I. W., 9
Wuggatzer, W. L., and Christian, J. E., a note on the polarographic determination of ionic copper present in the commercially available copper chlorophyllins, 645
—— Christian, J. E., a note on polarography and chromatography of some commercially available chlorophyllins, 30
Wurster, D. E., *see* Parrott, E. L., 269

Y

Youngken, H. W., a pharmacognostical study of the root of *Rauwolfia heterophylla* Roem. et Schult, 723
Youngken, H. W., Jr., *see* Djao, E. H., 321

Z

Zapotocky, J. A., *see* Sciarra, J. J., 370, 373
Zarrow, M. X., *see* Lehrman, G. P., 206
Zimmer, A. J., and Huyck, C. L., determination of riboflavin by light absorption and polarographic methods, 344
—— and Mansur, K., the polarographic determination of acriflavine, 204
Zivokovic, D., *see* Janssen, P., 465
Zupko, A. G., and Coran, A., a note on a simple universal fluid drop counter, 379
—— and Prokop, L. D., some pharmacological properties of Tricyclamol, a new anticholinergic agent, 160

SUBJECT INDEX

A

Absorption, light, determination of riboflavin by, and polarographic methods, 344
of orally administered cardiac glycosides in cats, 607
spectra, ultraviolet, of antihistaminic agents, 762
and excretion of a new cholecystographic agent, Teridax®, studies on the, 69
sublingual, a study of, I. Several factors influencing the rate of absorption, 419, II. Striated muscle relaxants and neurovegetative blocking agents, 472, III. A comparison of sublingual absorption from various tablet bases, 476
of sulfur and the polythionates into intact skin, a preliminary note on the, 383
of some alkaloids by different clays, 570

Acetal, cyclic, a note on the preparation of, from chloral and glucuronolactone, 127

Acetate, a study of carbon^{14} labeled, in *Digitalis purpurea* glycoside biosynthesis, 321

Acetyl compounds, the identification of digitoxin and digoxin from their, by means of paper chromatography, 428

N-Acetyl-*p*-aminophenol, plasma levels after the oral administration of acetylsalicylic acid, and, 396

Acetylsalicylic acid, plasma levels after the oral administration of, 396

Acorn oil, application of chromatography in the analysis of, 281

Acriflavine, the polarographic determination of, 204

Addictiveness of drugs, apparatus and technique involved in a laboratory method of detecting the, 229

Alcohol, beta-phenyl, as a preservative for ophthalmic solutions, 9

Alcohol *p*-thymotic, a note on derivatives of, 316

Alginic acid, derivatives of, 48

Alkaloidal ratios, a note on the, in certain species of datura, 710

Alkaloid, an, from *Rauwolfia canescens* L. toxicity and chemistry of 11-desmethoxyreserpine, (Raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate), 688
formation, influence of certain chemicals on the growth and, of *Claviceps purpurea* (Fries) Tulasne in artificial culture, 736
formation, the parasitic growth of *Claviceps purpurea* (Fries) Tulasne on rye and its relation to, 741
isolation of, from *Vinca minor*, 330
content of *Nigella damascena* seed, the effect of germination on the, 52

Alkaloids, adsorption of some, by different clays, 570
8-chlorotheophylline salts of some, preparation and properties of, 32
a note on the, of *Rauwolfia micrantha* Hook. f., 253
of opium, spectrophotometric determination of the principal, 156
pseudopelletierine, 17
the, of *Rauwolfia serpentina* Benth, 553
veratrum, paper chromatography of several, 543

Alkoxy analogs, corneal anesthetic activity and toxicity of some, of Thiocaine® and related compounds, 393

Alkyl *p*-N-alkyl amidinobenzoates, the synthesis of some new, 78

Alpha, alpha-disubstituted malondiamides, anticonvulsants—a study of some, 80

Alpha-amino acids, mercurated amides of, 76

α-4-dimethylamino-1,2-diphenyl-3-methyl-4-propionyloxybutane, the pharmacologic effects of a new analgesic, 497

α-amino-α-pyridylacetonitriles and derivatives. Antispasmodics II., 465

Alpha-naphthyl ketimine, phenyl, some pharmacological properties of, 325

Aluminum, dihydroxy, sodium carbonate, the preparation and properties of, V. Studies on antacids, 219

Amberlite® IRC-50, a note on the use of, for the purification of nonaqueous solvents, 61

Amides, mercurated, of *alpha*-amino acids, 76

Amidines, the synthesis of some 4-carbobenzoxy-3-alkoxy benzamide hydrochlorides and other, 585

Amidinobenzoates, the synthesis of some new alkyl *p*-N-alkyl, 78

Amines, identification of some sympathomimetic, 313

Amino acids, *alpha*-, mercurated amides of, 76

Aminobenzoate, ethyl, the effect of *p*H variations of ointment bases on the local anesthetic activity of incorporated, I. Hydrophilic ointment U. S. P., 342

Amino acids N-bis(β-chloroethyl), and related compounds as tumor-growth retarding agents, 132

Aminophenol, N-acetyl-p-, in different forms in human subjects, plasma levels after the oral administration of acetylsalicylic acid and, 396

***p*-Aminosalicylic acid,** (PAS), the metabolism of, in man, 65
II. Metal chelates and antitubercular activity, 415
the synthesis of. I. The synthesis of C-14 carboxyl-labeled *p*-aminosalicylic acid, 328

Aminosalicylic acids, glucose ester derivatives of, 467

Aminovinyl ketones, the structure of substances which affect the autonomic nervous system, II., 138

Analgesic, the pharmacologic effects of a new, α-4-dimethylamino-1,2-diphenyl-3-methyl-4-propionyloxybutane, 497

Analgesics, nonnarcotic, a biological method for the evaluation of the, 605

Analgetics, a quantal method for the study of tolerance to, 601

Anderson-Craver perfusion apparatus for interchanging perfusion fluids, a note on a modification of the, 382

Anesthetic, corneal, activity and toxicity of some alkoxy analogs of Thiocaine® and related compounds, 393
local, activity, the effect of *p*H variations of ointment bases of the, of incorporated ethyl aminobenzoate. I. Hydrophilic ointment U. S. P., 342
agents, local: the chemistry and pharmacology of twelve carbamates, 766
local, a measurement of the efficiency of ointment bases in releasing a, 706

Anhydrase inhibitors, carbonic, effect of, and antacids on the development of gastrointestinal ulcers during treatment with depot-histamine . . . a preliminary report, 123

Anilines, N-(2-hydroxy-5-chlorobenzylidine)-, and N-(2-hydroxy-5-chlorobenzyl)-, 148

Antabuse-like activity, screening some thiuram disulfides and related compounds for acute toxicity and, 756

Antacids, effect of carbonic anhydrase inhibitors and, on the development of gastrointestinal ulcers during treatment with depot histamine, 123
a study of, 170, II. Comparative evaluation by various methods, 694
studies on, V. The preparation and properties of dihydroxy aluminum sodium carbonate, 219

Anthraquinone compounds in lichens, a review of, 769

Anticholinergic agent, a new, some pharmacological properties of tricyclanol, 160

Anticonvulsant drugs, anti-Metrazol® efficacy of combinations of meparfynol and, 59
of some uracils and related compounds, 550
anti-Metrazol® efficacy of combinations of meparfynol and, drugs, 59

Anticonvulsants—a study of some *alpha*, *alpha*-disubstituted malondiamides, 80
the synthesis of uracils as, 545

Antifungal properties of 6-halothymols, synthesis and, 637

Antihistaminic agents, the identification of, 761
ultraviolet absorption spectra of, 762

Anti-infectives, a study of, in dermatologic emulsions, I. Factors affecting the release *in vitro* of certain anti-infectives from emulsions, 336, II. Stability in simple and compound emulsions, 611

Antimolding agents in syrups, the potentizing effect of, 305

Antispasmodics, identification and differentiation of seven new synthetic. Microtoxicology, XI., 54
II. α-Amino-α-pyridylacetonitriles and derivatives, 465
II. Synthesis of some beta-dialkylaminopropionanilides, 135

Antitubercular activity, metal chelates and, I. *o*-Hydroxyazo naphthols and phenanthrols, 257, II. *p*-Aminosalicylic acid, 415

Apparatus, a new perfusion, for the study of the effects of drugs on the coronary vessels, 363
and technique involved in a laboratory method of detecting the addictiveness of drugs, 229

Aqueous solubilities, a note on the, of Dibenamine® and dibenzyline hydrochloride, 126

Artificial culture, influence of certain chemicals on the growth and alkaloid formation of *Claviceps purpurea* (Fries) Tulasne in, 736

Arylketones and thiomorpholides in the synthesis of 8-substituted-xanthines, 649

Ascorbic acid, the stability of, in various liquid media, 241

Asiatic pines, a report on two Asiatic pines: *P. armandi* and *P. bungeana*, 424

Aspirin, the decomposition of, in aspirin, phenacetin, and caffeine tablets, 226

Aureomycin hydrochloride, a spectrophotometric assay for, 215
V. The use of some imitation flavors for masking distasteful drugs, 114

Autonomic nervous system, the structure of substances which affect the. II. Aminovinyl ketones, 138

B

Bacitracin, I. Review of pharmaceutical, chemical and assay literature, 700, II. Stability characteristics, 704

Bacteria-excluding filters for oils, 682

Barbituric acid derivatives, pentenyl substituted, the pharmacological relationship of a series of, 152
the effects of N-methylation in 5,5-disubstituted derivatives of, hydantoin, and 2,4-oxazolidinedione, 367

Barbiturates, a potentiometric nonaqueous assay for, and their preparations, 217

Bentonite suspensions, thixotropic measurements, 375

Benzamidine, the synthesis of some 4-carbobenzoxy-3-alkoxy, hydrochlorides and other amidines, 585

Benzocaine, stabilization of, with caffeine. Inhibition of hydrolysis of esters in solution by formation of complexes, 521

Benzodioxane, 2-(beta-hydroxyethylaminomethyl)-1,4-, hydrochloride, a pharmacological study of, 302

5-Benzylpyrimidines, basically substituted, 249

Beta-dialkylaminopropionanilides, antispasmodics II. Synthesis of some, 135

2-(Beta-hydroxyethylaminomethyl)-1,4-benzodioxane hydrochloride, a pharmacological study of, 302

Beta-phenylethyl alcohol as a preservative for ophthalmic solutions, 9

Biological, some, effects of the flavonoids, 404

Biosynthesis, a study of carbon^{14} labeled acetate in *Digitalis purpurea* glycoside, 321
Bis-dithiocarbamate, ethylene, esters as fungicides, the synthesis and investigation of some, 310
Blocking agents, neurovegetative, striated muscle relaxants and., II. A study of sublingual absorption, 472
Blood group A substance, a method for removal of, from pepsin, 630
Blood level determinations, the, of PAS and isoniazid with vanillin, 182
Book Notices
Actualités Pharmacologiques. Series 7, 320
Advances in Enzymology and Related Subjects of Biochemistry, Vol. 16, 645
The Alchemist Glossary of Medical Terms, 456
Analysis of Insecticides and Acaricides, 647
Analytical Cytology, 647
Antibiotics Annual, 1954–1955, 519
Austria Codex, 1954, 455
Behringwerk-Mitteilungen, 255
Bentley's Textbook of Pharmaceutics, 6th ed., 62
Biochemistry, 582
Biochemistry and Physiology of Protozoa, 646
The Biologic Effects of Tobacco, 582
Biomathematics, 318
British Pharmaceutical Codex, 1954, 190
Calendar of the Pharmaceutical Society of Great Britain 1954/55, 319
Canadian Cancer Conference, Vol. 1, 454
The Care of Your Skin, 455
Catalysis. Vol. 2., 320
Cellular Metabolism and Infections, 318
Chemical Specificity in Biological Interactions, 63
College Physiology, 646
Compounds with Condensed Thiophene Rings, 64
Consulting Services, 519
Drugs in Current Use 1955, 320
Einführung in die Biologische Registriertechnik, 128
Electrochemistry in Biology and Medicine, 582
50 Jahre Arzneimittelforschung, 385
Les Gaz Inertes, L'Hydrogène, Les Halogens, 454
General State Food and Drug Laws, 583
Geschichte und Probleme der Apothekerausbildung, 455
Glutathione, 319
Hospital Formulary of Selected Drugs, 255
Hydrometers and Hydrometry, 63
The Hypophyseal Growth Hormone, Nature and Actions, 582
Hypertension.—Humoral and Neurogenic Factors, 191
Industrial Detergency, 453
The Infra-red Spectra of Complex Molecules, 62
Ion Exchange and Absorption Agents in Medicine, 454
Introduction to Theoretical Organic Chemistry, 454
Jahrhundertfeier der Geburtstage von Paul Ehrlich und Emil V. Behring, 191
The Kidney, 255
The Kinetic Basis of Molecular Biology, 128
Kurzes Lehrbuch der Pharmaceutischen Chemie, auch zum Gebrauch fuer Mediziner, 255
The Law of Drugs and Druggists, 4th ed., 583
The Lipids, 318
Management of Addictions, 519
The Medical Clinics of North America, 647
1955 Medical Progress, 456
Methoden der Organischen Chemie, Vol. 4, Part 2, 385
Methods of Biochemical Analysis. Vol. 2, 385
Micro and Semimicro Methods, 62
Microbiology, 2nd ed., 582
The National Formulary 1955 (Brit.) 319
New and Nonofficial Remedies, 1955, 647
New Practical Formulary, 518
Nucleic Acids, Vol. 1, 453, Chemistry and Biology, Vol. 2, 581
Organic Analysis, Vol. 2, 63
Organic Reactions, Vol. 8, 128
Organic Syntheses. Vol. 34, 64, Collective Vol. 3, 386
Origins of Resistance to Toxic Agents, 646
Outlines of Enzyme Chemistry, 319
Perspectives and Horizons in Microbiology. A Symposium, 319
Pharmacodynamie Biochimique, 455
The Pharmacological Basis of Therapeutics, 455
Pharmacology in Medicine, 255
The Pharmacopeia of the United States of America, 648
Pharmazeutisches Wörterbuch, 518
Physiopathologie du Potassium, 583
The Plant Quarantine Problem, 191
Polarographic Techniques, 645
Practical Clinical Biochemistry, 191
Practical Endocrinology, 454
Practical Physiological Chemistry, 13th ed., 62
Rapid Detection of Cations, 320
The Rauwolfia Story, 386
Recent Progress in Hormone Research, Vol. 10, 63
Reports on the Progress of Applied Chemistry, Vol. 38, 128
Reproductive System, 191
The Roger Adams Symposium, 581
The Role of Humoral Agents in Nervous Activity, 454
Rutin and Related Flavonoids, 581
Small-Scale Inorganic Qualitative Analysis, 385
Somministrazione dei Farmaci per Via Rettale: Tecnica de Preparazione delle Forme Farmaceutiche, 128
Special Food and Drug Laws, 583
Technique of Organic Chemistry. Vol. 7, 646
This is Liquid Sugar, 518
The Vitamins—Chemistry, Physiology, Pathology, Vol. 2, 63, Vol. 3, 191
Vitamins in Theory and Practice, 647
The Year Book of Drug Therapy, 318
Boric acid, polarimetric analysis of, 373
a study of methods of analysis for, I. visual and potentiometric titration of boric acid, 370, II. Polarographic analysis of boric acid, 373
Brome ergot, smooth, the pharmacognosy of, 480
8-Bromotheophylline, some new soluble salts of, 355
Buffered erythromycin ointments, an evaluation of the stability of, 7
Buffered ophthalmic solutions of silver nitrate, 25
Bulking agents, an *in vitro* evaluation of some hydrophilic colloids as, 237

C

Caffeine, the decomposition of aspirin in aspirin, phenacetin and, tablets, 226
stabilization of benzocaine with. Inhibition of hydrolysis of esters in solution by formation of complexes, I, 521
Canna gum, a preliminary investigation of, 411
Carbamates, local anesthetic agents: the chemistry and pharmacology of twelve, 766
4-Carbobenzoxy-3-alkoxy benzamide hydrochlorides and other amidines, the synthesis of some, 585
Carbonate, dihydroxy aluminum sodium, the preparation and properties of, V. Studies on antacids, 219
Carbonic anhydrase inhibitors, effect of, and antacids on the development of gastrointestinal ulcers during treatment with depot-histamine. . .a preliminary report, 123
C^{14} carbonyl labeled dimethyl phthalate, the synthesis of, 105
C^{14} carboxyl-labeled *p*-aminosalicylic acid, the synthesis of, 328
Carbon^{14} labeled acetate in *Digitalis purpurea* glycoside biosynthesis, a study of, 321
Carbonyl labeled dimethyl phthalate, the synthesis of C^{14}, 105
Carboxyl-labeled, C-14, *p*-aminosalicylic acid, the synthesis of, 328
Carboxymethylcellulose, inhibition of microbial growth by, III. Properties and applications of powdered polysaccharide acids, 540
sodium, determination of, 533
sodium, a nonaqueous titration assay for, 759
Cardiac glycosides in cats, absorption of orally administered, 607
Cardioactive glycoside, a new, diginatin, from *Digitalis lanata*, 719
Carrageenin, an evaluation of the emulsifying properties of, 358
Central depressants, properties of uracil and related oxypyrimidines, 56
Chamaecyparis lawsoniana stump heartwood, composition of the volatile oil from, 535
Chelates, metal, and antitubercular activity, I. *o*-Hydroxyazo naphthols and phenanthrols, 257, II. *p*-Aminosalicylic acid, 415
metal, of streptomycin, 261
Chelerythrine, the pharmacological action of, 196
Chemical preservatives for ophthalmic solutions, an evaluation of, 457
Chloral and glucuronolactone, a note on the preparation of a cyclic acetal from, 127
N-bis(β-Chloroethyl)amino acids and related compounds as tumor-growth retarding agents, 132
Chlorophyllins, copper, a note on the polarographic determination of ionic copper present in the commercially available, 645
the effect of, on various odorants as measured by surface tension changes of liquids, 504
a note on polarography and chromatography of some commercially available, 30
8-Chlorotheophylline salts, of some alkaloids, preparation and properties of, 32
5-Chloro-2-thienyl-β-dialkylaminoethyl ketones and related compounds, 717
Chloral and glucuronolactone, a note on the preparation of a cyclic acetal from, 127
Cholecystographic agent, Teridax® a new, studies on the absorption and excretion of, 69
Cholic, desoxycholic, and dehydrocholic acids, the application of nonaqueous titrimetry to the determinations of, 529
Crystalline vitamin B$_{12}$—a note on stability of the B vitamins in solutions, 254
Chromatograms, paper, the determination of iodideiodate activity in sodium radioiodide (I^{131}) by automatic scanning of, 107
Chromatographic, the, analysis of reserpine preparations, 640
separation from pharmaceutical products, the determination of reserpine by, 660
Chromatography, application of, in the analysis of acorn oil, 281
a note on polarography and, of some commercially available chlorophyllins, 30
paper, a preliminary study of the hydrolytic products of gentiopicrin by, 340
paper, the identification of digotixin and digoxin from their acetyl compounds by means of, 428
paper, of several veratrum alkaloids, 543
Citric and tartaric acid salts of piperazine, preparation and properties of, 678
Claviceps purpurea (Fries) Tulasne in artificial culture, influence of certain chemicals on the growth and alkaloid formation of, 736
(Fries) Tulasne, the parasitic growth of, on rye and its relation to alkaloid formation, 741
Clays, adsorption of some alkaloids by different, 570
Colloids, some hydrophilic, an *in vitro* evaluation of, as bulking agents, 237
Compressed tablets: internal flow of granulation during compression, 290
Copper chlorophyllins, a note on the polarographic determination of ionic copper present in the commercially available, 645
ionic, present in the commercially available copper chlorophyllins, a note on the polarographic determination of, 645

Corneal anesthetic activity and toxicity of some alkoxy analogs of Thiocaine® and related compounds, 393
Coronary vessels, a new perfusion apparatus for the study of the effects of drugs on the, 363
Countercurrent analysis of vitamin B_{12}, 577
Counter, a note on a simple universal fluid drop, 379
Culture, artificial, influence of certain chemicals on the growth and alkaloid formation of *Claviceps purpurea* (Fries) Tulasne in, 736
Corrections
A taste panel study of the saccharin off-taste, 520
composition of gum turpentines of pines, XXI, 189
compressed tablets: weight variation, 520
essential elimination of sodium cycloheptenylethylbarbiturate (Medomin®) in rabbits, 520
WHO Recommended International Non-Proprietary Names, 520
Crystalline vitamin B_{12}, effect of thiamine hydrochloride on the stability of solutions of, 662
a note on the stability of the B vitamins in solutions, 254
Crystallographic data for yohimbine, 414
properties, the optical, of some N. F. X. substances, 74
Cucurbita foetidissima, the preliminary investigation of an extract of the root of, 440
Cutaneous permeability, the effect of topically applied hyaluronidase on, to certain substances, 483
Cyclamate-saccharin mixture, a taste panel study of, and of its components, 442
Cyclic acetal, a note on the preparation of a, from chloral and glucuronolactone, 127
Cycloheptenylethylbarbiturate, sodium, essential elimination of, (Medomin®) in rabbits, 221

D

Datura, a note on the alkaloidal ratios in certain species of, 710
DDT *vs.* wildlife, relationships between quantities ingested, toxic effects and tissue storage, 22
Decomposition, the, of aspirin in aspirin, phenacetin, and caffeine tablets, 226
Dehydrocholic acids, the application of nonaqueous titrimetry to the determinations of cholic, desoxycholic and, 529
Depot-histamine, effect of carbonic anhydrase inhibitors and antacids on the development of gastrointestinal ulcers during treatment with, 123
Dermatologic emulsions, a study of anti-infectives in, I. Factors affecting the release *in vitro* of certain anti-infectives from emulsions, 336, II. Stability in simple compound emulsions, 611
11-Desmethoxyreserpine, toxicity and chemistry of, (Raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate) an alkaloid from *Rauwolfia canescens* I, 688
Desmodium gangeticum DC, I., a preliminary phytochemical investigation of, 625, chemical investigation of, II. Chemical constitution of the lactone, 628
beta-Dialkylaminopropionanilides, synthesis of some. Antispasmodics, II, 135
Desoxycholic, cholic, and dehydrocholic acids, the application of nonaqueous titrimetry to the determinations of, 529
N,N-Dialkyl-dialkylenetriamines, and corresponding imidazolines, 654
Dibenamine® and Dibenzyline® hydrochloride, a note on the aqueous solubilities of, 126
Dibenzyline® hydrochloride, a note on the aqueous solubilities of Dibenamine® and, 126
Die wall pressure during tablet compression, some preliminary measurements of, the physics of tablet compression, VIII, 494
Diginatin—a new cardioactive glycoside from *Digitalis lanata*, 719
Digitalis lanata, diginatin—a new cardioactive glycoside from, 719
Digitalis purpurea glycoside biosynthesis, a study of carbon^{14} labeled acetate in, 321
Digitalis tincture in pigeons, the influence of the rate of an intermittent administration upon the lethal dose of, 338
Digitoxin, the identification of, and digoxin from their acetyl compounds by means of paper chromatography, 428
Digoxin, the identification of digitoxin and, from their acetyl compounds by means of paper chromatography, 428
Dihydroxy aluminum sodium carbonate, the preparation and properties of, V. Studies on antacids, 219
α-4-Dimethylamino-1,2-diphenyl-3-methyl-4-propionyloxybutane, the pharmacologic effects of a new analgesic, 497
Dimethyl phthalate, the synthesis of C^{14} carbonyl labeled, 105
Diphenylacetate, ethyl, a pharmacological study of certain basic derivatives of, 743
Disintegration, recently developed granulating agents and their effect on, 251
Dissolution rate, some factors influencing the, investigation of drug release from solids I, 269
Distasteful drugs, the use of some imitation flavors for masking, aureomycin hydrochloride, 114, Penicillin G potassium, 118, Terramycin hydrochloride, 120
5,5-Disubstituted Derivatives of barbituric acid, hydantoin, and 2,4-oxazolidinedione, the effects of N-methylation in, 367
Disubstituted alpha, alpha-, malondiamides, a study of some, 80
Disulfides, thiuram, screening some, and related compounds for acute toxicity and Antabuse-like activity, 756
bis-Dithiocarbamate, ethylene, esters as fungicides, the synthesis and investigation of some, 310
Diuretics, mercurial, a note on a simple assay method for certain, 381
D-Mannuronic acid, isonicotinyl hydrazones from D-mannuronolactone and, 591
D-**Mannuronolactone** and D-mannuronic acid, isonicotinyl hydrazones from, 591
Dormison, *see* meparfynol, 59
Drop counter, a note on a simple universal fluid, 379
Drop technique, modified pendant, rapid surface tension determinations using a, 501
Drug release from solids, investigation of, I. Some factors influencing the dissolution rate, 269

E

Emulsification with ultrasonic waves, a study of, I, 487, II, 490
Emulsified bases at the site of application, the retention of an insect repellent in, 574
Emulsifying properties of carrageenin, an evaluation of the, 358
Emulsions, I. Factors affecting the release *in vitro* of certain anti-infectives from, 336, II. Stability in simple and compound emulsions, 611
pharmaceutical, a comparative study of mineral oil separation in, 284
study of anti-infectives in dermatologic, 336
Energy expenditure in the tablet compression process, the physics of tablet compression, VII, 223
Ephedrine spray N. F., the stability of ephedrine in compound, 526
Epinephrine and norepinephrine, the analysis of solutions of, 507
Ergot, smooth brome, the pharmacognosy of, 480
Erythromycin, Lilly, further toxicological studies with Ilotycin®, 199
ointments, an evaluation of the stability of buffered, 7
Escherichia coli, effect of glutathione on the response of, to penicillin, 621
113-3, the influence of thiamine on the microbiological assay for vitamin B_{12} with, 594
Esters, inhibition of hydrolysis of, in solution by formation of complexes, I. Stabilization of benzocaine with caffeine, 521
Estrogen preparations, conjugated, the analysis of, 727
Ethyl aminobenzoate, the effect of pH variations of ointment bases on the local anesthetic activity of incorporated, I. Hydrophilic ointment U. S. P., 342
Ethyl diphenylacetate, a pharmacological study of certain basic derivatives of, 743
Ethylene bis-dithiocarbamate esters as fungicides, the synthesis and investigation of some, 310

F

Filters for oils, bacteria-excluding, 682
Flame photometer, production control of polyelectrolyte parenterals with a, 731
Flavonoids, some biological effects of the, 404
Folic acid, studies in the stabilization of, in liquid pharmaceutical preparations, 34
Fluid drop counter, a note on a simple universal, 379
Fluorometric assay, a, of reserpine, 657
procedures, damascenine determination, 52
Fluorimetry, determination of salicylic acid and two metabolites in plasma and urine using, for directly measuring salicyluric acid, 142
Fungicides, the synthesis and investigation of some ethylene bis-dithiocarbamate esters as, 310
Fungistatic agent, sorbic acid as a, for certain pharmaceutical preparations, 85
Furfuralacetone, 5-nitro-2-, Mannich bases from 5-nitro-2-acetylfuran, 273

G

Gastrointestinal ulcers during treatment with depot-histamine, effect of carbonic anhydrase inhibitors and antacids on the development of, 123
Gelatin sols, a study of the reproducibility of viscosity determinations using, 164
Gentiopicrin, a preliminary study of the hydrolytic products of, by paper chromatography, 340
Germination, the effect of, on the alkaloid content of *Nigella damascena* seed, 52
Glucose ester derivatives of aminosalicylic acids, 467
Glucuronolactone, chloral and, a note on the preparation of a cyclic acetal from, 127
Glutathione, effect of, on the response of *Escherichia coli* to penicillin, 621
some chemical effects of focused ultrasound on, and other compounds, 234
Glycol, polyethylene, formation of iodine-iodide complexes with, 668
400, polyethylene, as a stabilizing solvent in parenteral pentobarbital sodium solutions, 296
Glycols, polyethylene, the chronic oral toxicology of the, 27
Glycoside biosynthesis, a study of carbon^{14} labeled acetate in *Digitalis purpurea*, 321
diginatin—a new cardioactive, from *Digitalis lanata*, 719
Glycosides, cardiac, in cats, absorption of orally administered, 607
Granulating agents, recently developed, and their effect on disintegration, 251
Granulation during compression, compressed tablets: internal flow of, 290
measurement of the repose angle of a tablet, 435
Group A substance, blood, a method for removal of, from pepsin, 630
Growth, preliminary studies on the effect of feeding sorbic acid upon the, reproduction, and cellular metabolism of albino rats, 619
Gum, canna, a preliminary investigation of, 411
turpentines of pines composition of, XXIII. A report on three Mediterranean species: *Pinus pinea* (cultivated in California), *P. halepensis* (from Israel) and *P. brutia* (from Cyprus), 186
XXIV. A report on two Asiatic pines: *Pinus armandi* and *P. bungeana*, 424

H

6-Halothymols, synthesis and antifungal properties of, 637

Hardness testers, comparison and correlation of the Strong Cobb and Monsanto tablet, 83

Hegman Gauge, application of the, to medicinal particle fineness in ointments, 211

Histamine, depot-, effect of carbonic anhydrase inhibitors and antacids on the development of gastrointestinal ulcers during treatment with, 123

Hippomane manceinella L., investigation of the toxic principles of, II. Preliminary isolation of a toxic principle of the fruit, 361

Hyaluronidase, the effect of topically applied, on cutaneous permeability to certain substances, 483

Hydantoin, the effects of N-methylation in 5,5-disubstituted derivatives of barbituric acid, and 2,4-oxazolidinedione, 367

Hydrazones, isonicotinyl, from D-mannuronolactone and D-mannuronic acid, 591

Hydrobromide, hyoscine, in a tablet mixture, a physical method for the determination of, 377

Hydrochlorides, the synthesis of some 4-carbobenzoxy-3-alkoxy benzamide, and other amidines, 585

Hydrolysis, inhibition of, of esters in solution by formation of complexes. I. Stabilization of benzocaine with caffeine, 521

Hydrophilic colloids, an *in vitro* evaluation of some, as bulking agents, 237

ointment U. S. P., I., the effect of *p*H variations of ointment bases on the local anesthetic activity of incorporated ethyl aminobenzoate, 342

N-(2-Hydroxy-5-chlorobenzyl)-anilines, N-(2-hydroxy-5-chlorobenzylidine)-anilines and, 148

N-(2-Hydroxy-5-chlorobenzylidine)-anilines and N-(2-hydroxy-5-chlorobenzyl)-anilines, 148

2-(beta-Hydroxyethylaminomethyl)-1,4-benzodioxane hydrochloride a pharmacological study of, 302

o-Hydroxyazo naphthols and phenanthrols, metal chelates and antitubercular activity, I, 257

Hyoscine hydrobromide in a tablet mixture, a physical method for the determination of, 377

I

Ilotycin®, further toxicological studies with, (Erythromycin, Lilly), 199

Imidazolines, N,N-dialkyl-dialkylenetriamines and corresponding, 654

Imitation flavors, the use of some, for masking distasteful drugs, 114, 118, 120

Indole compounds, the pharmacologic action of, 399

Inhalational therapy, safety of, III. Pressor drugs, 208

Inhibitors, effect of carbonic anhydrase, and antacids on the development of gastrointestinal ulcers during treatment with depot-histamine. . .a preliminary report, 123

Inositols from *Vernonia altissima,* the isolation of three, 308

Insect repellent, the retention of an, in emulsified bases at the site of application, 574

Iodate, iodide-, the determination of, activity in sodium radio-iodide (I^{131}) by automatic scanning of paper chromatograms, 107

Iodide-iodate, the determination of, activity in sodium radio-iodide (I^{131}) by automatic scanning of paper chromatograms, 107

Iodide, iodine-, complexes, formation of, with polyethylene glycol, 668

Iodide, radio-, (I^{131}), sodium, the assay of, used for medicinal purposes, 631

sodium, the determination of iodide-iodate activity in, by autometic scanning of paper chromatograms, 107

Iodine as a virucidal agent, 177

Iodine-iodide complexes, formation of, with polyethylene glycol. Study of possible complex formation between macromolecules and certain pharmaceuticals IX, 668

Ion exchange resins, purification of relaxin, by, 206

Ionic copper, a note on the polarographic determination of, present in the commercially available copper chlorophyllins, 645

Isoniazid with vanillin, the blood level determinations of PAS and, 182

Isonicotinyl hydrazones from D-mannuronolactone and D-mannuronic acid, 591

Isoraunescine, raunescine and, from *Rauwolfia canescens* L., 639

Isotonicity, a study of thermoelectric methods for determining, 43

J

Juniper, western, composition of the volatile oil from the foliage and terminal branches of, 87

K

Ketimine, phenyl alpha-naphthyl, some pharmacological properties of, 325

Ketones, aminovinyl, the structure of substances which affect the autonomic nervous system, II, 138

5-chloro-2-thienyl-β-dialkylaminoethyl, and related compounds, 717

Kleinia nizoides DC, the structure and constituents of, 349

L

Labeled compounds, Carbon^{14} labeled acetate in *Digitalis purpurea* glycoside biosynthesis, a study of, 321

C^{14} carbonyl labeled dimethyl phthalate, the synthesis of, 105

Lactone, chemical constitution of the. Chemical investigation of *Desmodium gangeticum,* II, 628

Lauryl sulfate, sodium, the *in vitro* effect of, on vaginal pathogens, 245

Lemongrass leaves, the microscopic structure of, 89

Lethal dose of digitalis tincture in pigeons, the influence of the rate of an intermittent administration upon the, 338

Lichens, a review of anthraquinone compounds in, 769

Local anesthetic activity, the effect of *p*H variations of ointment bases on the, of incorporated ethylaminobenzoate. I. Hydrophilic ointment U. S. P., 342

agents: the chemistry and pharmacology of twelve carbamates, 766

a measurement of the efficiency of ointment bases in releasing a, 706

M

Macromolecules, study of possible complex formation between, and certain pharmaceuticals IX. Formation of iodine-iodide complexes with polyethylene glycol, 668

Magnesium citrate solution, an improved assay for, 287

Malondiamides, a study of some *alpha, alpha*-disubstituted, 80

Mannich bases from 5-nitro-2-acetylfuran and 5-nitro-2-furfuralacetone, 273

D-Mannuronic acid, isonicotinyl hydrazones from D-mannuronolactone and, 591

D-Mannuronolactone and D-mannuronic acid, isonicotinyl hydrazones from, 591

Masking distasteful drugs, the use of some imitation flavors for, 114, 118, 120

Medomin®, Lilly sodium cycloheptenylethylbarbiturate, essential elimination of, in rabbits, 221

Meparfynol, anti-Metrazol® efficacy of combinations of, and anticonvulsant drugs, 59

Mercurated amides of *alpha*-amino acids, 76

Mercurial diuretics, a note on a simple assay method for certain, 381

Metabolism, of *p*-aminosalicylic acid (PAS) in man, 65

cellular, of albino rats, preliminary studies on the effect of feeding sorbic acid upon the growth, reproduction, and, 619

Metabolites in plasma and urine using fluorimetry for directly measuring salicyluric acid, 142

Metal chelates and antitubercular activity. I. *o*-Hydroxyazo naphthols and phenanthrols, 257. II. *p*-Aminosalicylic acid, 415

of streptomycin, 261

N-Methylation, in 5,5-disubstituted derivatives of barbituric acid, hydantoin, and 2,4-oxazolidinedione, 367

Methyl-11-desmethoxyreserpate, 3,4,-5-trimethoxybenzoic acid ester of, an alkaloid from *Rauwolfia canescens* L. Toxicity and chemistry of 11-desmethoxyreserpine, (Raunormine), 688

Methylpropyl, 2-nitro-2, carbamate, 99

Metrazol®—anti-Metrazol efficacy of combinations of meparfynol and anticonvulsant drugs, 59

Microbiological assay for vitamin B_{12} with *Escherichia coli* 113-3, the influence of thiamine on the, 594

Microbial growth, inhibition of, by carboxymethylcellulose. Properties and applications of powdered polysaccharide acids, III, 540

Microchemical methods

antispasmodics, 54

Microtoxicology XI. Identification and differentiation of seven new synthetic antispasmodics, 54

Mineral oil separation, a comparative study of, in pharmaceutical emulsions, 284

Monsanto tablet hardness testers, comparison and correlation of the Strong Cobb and the, 83

Morphine in opium, a suggested improvement in the U. S. P. method for determining, 538

Multisulfa preparation, a liquid, color stability in. Prediction of stability in pharmaceutical preparations, I., 515

Multivitamin, complex, preparations, the effect of shelf life on the potency of, 263

products of the retail market, the age of, 598

Muscle, striated, relaxants, and neurovegetative blocking agents. A study of sublingual absorption, II., 472

N

N-Acetyl-p-aminophenol, plasma levels after the oral administration of acetylsalicylic acid and, 396

N-bis(β-Chloroethyl)amino acids and related compounds as tumor-growth retarding agents, 132

N-(2-Hydroxy-5-chlorobenzyl)-anilines, N-(2-hydroxy-5-chlorobenzylidine)-anilines and, 148

N-(2-Hydroxy-5-chlorobenzylidine)-anilines and N-(2-hydroxy-5-chlorobenzyl)-anilines, 148

Naphthols, o-hydroxyazo, and phenanthrols, metal chelates and antitubercular activity, I, 257

Narcotine, a note on the optical rotation of, 580

Neomycin, the stability of, in several pharmaceutical preparations, 275

Nervous system, the structure of substances which affect the, II. Aminovinyl ketones, 138

Neurovegetative blocking agents, striated muscle relaxants, II. A study of sublingual absorption, 472

N. F. X substances, the optical crystallographic properties of some, 74

Nigella damascena seed, the effect of germination on the alkaloid content of, 52

5-Nitro-2-acetylfuran and 5-nitro-2-furfuralacetone, Mannich bases from, 273

5-Nitro-2-furfuralacetone, 5-nitro-2-acetylfuran and, Mannich bases from, 273

Nitromethane, the behavior of organic bases in, 332

2-Nitro-2-methylpropyl carbamate, 99

N-Methylation, the effects of, in, 5,5-disubstituted derivatives of barbituric acid, hydantoin, and 2,4-oxazolidinedione, 367

N,N-Dialkyl-dialkylenetriamines and corresponding imidazolines, 654

Nominations announcement for 1956 Chilean Iodine Educational Bureau Award, p. II (Sept., Oct., Nov.)

Nonaqueous assay, a potentiometric, for barbiturates and their preparations, 217

a note on the use of Amberlite® IRC-50 for the purification of, solvents, 61
titration assay, for sodium carboxymethylcellulose, 759
titrimetry, application of, to the determinations of cholic, desoxycholic, and dehydrocholic acids, 529
Nonnarcotic analgesics, a biological method for the evaluation of the, 605
Non-proprietary names, World Health Organization recommended international, 387
Norepinephrine, the analysis of solutions of epinephrine and, 507

O

Odorants, the effect of chlorophyllins on various, as measured by surface tension changes of liquids, 504
Official pharmaceuticals, tests for rosins in, 150
"Off-taste," saccharin, a taste panel study of the, 353
Oil, volatile, composition of the, from *Chamaecyparis lawsoniana* stump heartwood, 535
volatile, composition of the, from the foliage and terminal branches of western juniper, 87
Oils, bacteria-excluding filters for, 682
Ointment bases, the effect of *p*H variations of, on the local anesthetic activity of incorporated ethyl aminobenzoate. I. Hydrophilic ointment U. S. P., 342
a measurement of the efficiency of, in releasing a local anesthetic, 706
the relative efficacy of various, as antiseptic vehicles, 5
Ointments, application of the Hegman gauge to medicinal particle fineness in, 211
erythromycin, an evaluation of the stability of buffered, 7
Ophthalmic solutions *beta*-phenylethyl alcohol as a preservative for, 9
buffered, of silver nitrate, 25
an evaluation of chemical preservatives for, 457
isotonicity, a study of thermoelectric methods for determining, 43
thermoelectric methods, a study of, for determining isotonicity, 43
Opium, alkaloids of, spectrophotometric determination of the principal, 156
a suggested improvement in the U. S. P. method for determining morphine in, 538
Optical rotation of narcotine, a note on the, 380
Optical crystallographic properties of some N. F. X substances, 74
Organic bases, the behavior of, in nitromethane, 332
o-Hydroxyazo naphthols and phenanthrols, metal chelates and antitubercular activity, I., 257
o-Thymotic acid, sulfur derivatives of, 747
Oxypyrimidines, central depressant properties of uracil and related, 56
Oxytetracycline, parenteral, and tetracycline, a study of, 751
2,4-Oxazolidinedione, the effects of N-methylation in 5,5-disubstituted derivatives of barbituric acid, hydantoin, and, 367
Oxazolopyrimidine and thiazolopyrimidine derivatives related to the xanthines, 193

P

Pachyrrhizus erosus (L.) **urban,** a microscopic study of the leaf, stem, and root of, 431
the saponins of, 38
Paper chromatograms, the determination of iodide-iodate activity in sodium radio-iodide (I^{131}) by automatic scanning of, 107
Paper Chromatography, the identification of digitoxin and digoxin from their acetyl compounds by means of, 428
a preliminary study of the hydrolytic products of gentiopicrin by, 340
of several veratrum alkaloids, 543
Para-aminosalicylic acid (PAS) in man, the metabolism of, 65
the synthesis of C^{14} carboxyl-labeled, 328. Metal chelates and antitubercular activity, 415
Para-N-alkyl amidinobenzoates, the synthesis of some new alkyl, 78
Parasitic growth, the, of *Claviceps purpurea* (Fries) Tulasne on rye and its relation to alkaloid formation, 741
Para-thymotic alcohol, a note on derivatives of, 316
Parenteral oxytetracycline and tetracycline, a study of, 751
pentobarbital sodium solutions, polyethylene glycol 400 as a stabilizing solvent in, 296
Parenterals, polyelectvolyte, production control of, with a flame photometer, 731
PAS, the blood level determinations of, and isoniazid with vanillin, 182
Particle fineness, medicinal, in ointments, application of the Hegman gauge to, 211
Pathogens, vaginal, the *in vitro* effect of sodium lauryl sulfate on, 245
Pelletierine, pseudo, a synthesis of, 17
Pendant drop technique, rapid surface tension determination using a modified, 501
Penicillin, effect of glutathione on the response of *Escherichia coli* to, 621
Penicillin G Potassium, VI. The use of some imitation flavors for masking distasteful drugs, 118
Pentobarbital sodium solutions, polyethylene glycol 400 as a stabilizing soivent in parenteral, 296
Pentyl substituted barbituric acid derivatives, the pharmacological relationship of a series of, 152
Pepsin, a method for removal of blood group A substance from, 630
Perfusion apparatus, Anderson-Craver, a note on a modification of the, for interchanging perfusion fluids, 382
a new, for the study of the effects of drugs on the coronary vessels, 363
Perfusion fluids, a note on a modification of the Anderson-Craver perfusion apparatus for interchanging, 382
Permeability, cutaneous, the effect of topically applied hyaluronidase on, to certain substances, 483
Pharmacognosy
A microscopic study of the leaf, stem, and root of *Pachyrrhizus erosus* (L.) urban, 431
of the root of *Rauwolfia heterophylla* Roem. et Schult., 723
of smooth brome ergot, 480
of *Pyrularia pubera* Michx., 39
Pharmacologic action, the, of indole compounds, 399
Pharmacological study, a, of 2-(*beta*-hydroxyethylaminomethyl) - 1,4 - benzodioxane hydrochloride, 302
Phenacetin, the decomposition of aspirin in aspirin, and caffeine tablets, 226
Phenanthrols, *o*-hydroxyazo naphthols and, metal chelates and antitubercular activity, I., 257
Phenyl *alpha*-naphthyl ketimine, some pharmacological properties of, 325
Phenylethyl alcohol, *beta*, as a preservation for ophthalmic solutions, 9
Photometer, flame, production control of polyelectrolyte parenterals with a, 731
Phthalate, dimethyl, the synthesis of C^{14} carbonyl labeled 105
Physics, the, of tablet compression, VII. Determination of energy expenditure in the tablet compression process, 223. VIII. Some preliminary measurements of die wall pressure during tablet compression, 494
Phytochemical investigation, a preliminary, of *Desmodium gangeticum* DC, I, 625
Pines, composition of gum turpentines of, XXIII. *P-pinea, P. halepensis,* and *P. brutia,* 186, XXIV. *P. armandi* and *P. bungeana,* 424
P. brutia (from Cyprus), a report on three Mediterranean species: *Pinus pinea* (cultivated in California), *P. halepensis* (from Israel) and, composition of gum turpentines of pines, XXIII, 186
Pinus armandi and *P. bungeana,* a report on two Asiatic pines, XXIV. Composition of gum turpentine of pines, 424
P. halepensis (from Israel), a report on three Mediterranean species: *Pinus pinea* (cultivated in California), and *P. brutia* (from Cyprus). Composition of gum turpentines of pines, XXIII, 186
Pinus pinea (cultivated in California), P. halepensis (from Israel) and P. brutia (from Cyprus), a report on three Mediterranean species. Composition of gum turpentines of pines, XXIII, 186
Piperazine, preparation and properties of citric and tartaric acid salts of, 678
Plantago, Texas, seeds, further studies on, 100
Plasma and urine determination of salicylic acid and two metabolites in, using fluorimetry for directly measuring salicyluric acid, 142
levels after the oral administration of acetylsalicylic acid and N-acetyl-*p*-aminophenol in different forms to human subjects, 396
Plate assay of polymyxin B, interference of sucrose in the, 231
Polarimetric analysis of boric acid, 373
Polarographic, determination of acriflavine, 204
determination, a note on the, of ionic copper present in the commercially available copper chlorophyllins, 645
methods, determination of riboflavin by light absorption and, 344
Polarography, a note on, and chromatography of some commercially available chlorophyllins, 30
Polyelectrolyte parenterals, production control of, with a flame photometer, 731
Polyethylene glycol, formation of iodine-iodide complexes with, 668
400 as a stabilizing solvent in parenteral pentobarbital sodium solutions, 296
Polyethylene glycols, the chronic oral toxicology of the, 27
Polymyxin B, interference of sucrose in the plate assay of, 231
Polysaccharide acids, powdered, properties and applications of. I. Preparation and titration curves, 109. II. Tablet studies, 112. III. Inhibition of microbial growth by carboxymethylcellulose, 540
Polythionates, a preliminary note on the absorption of sulfur and the, into intact skin, 383
Potency of complex multivitamin preparations, the effect of shelf life on the, 263
Potentiometric nonaqueous assay for barbiturates and their preparations, 217
titration, visual and, of boric acid, 370
Potentizing effect, the, of antimolding agents in syrups, 395
Preservatives, *beta*-phenylethyl alcohol as a preservative, for ophthalmic solutions, 9
chemical, for ophthalmic solutions, an evaluation of, 457
in pharmaceutical products, determining the efficacy of, 613
Pressor drugs, III. Safety of inhalational therapy, 208
Protoveratrine, determination of, 713 methods for the determination of, 129
Pseudopelletierine, a synthesis of, 17
Pyridylacetonitriles, **α-amino-α-,** and derivatives, II. Antispasmodics, 465
Pyrularia pubera Michx., a pharmacognostical study of, 39
a pharmacological investigation of the seeds of, 247

R

Radio-iodide (I^{131}), sodium, the determination of iodide-iodate activity in by automatic scanning of paper chromatograms, 107
sodium, the assay of, used for medicinal purposes, 631
Raunescine and isoraunescine from *Rauwolfia canescens* L., 639
Raunormine, toxicity and chemistry of 11-desmethoxyreserpine, (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate) an alkaloid from *Rauwolfia canescens* I, 688
Rauwolfia canescens L., raunescine and isoraunescine from, 639
canescens, toxicity and chemistry of

11-desmethoxyreserpine, (Raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate) an alkaloid from, 688
heterophylla Roem. et Schult, a pharmacognostical study of the root of, 723
micrantha Hook. f., a note on the alkaloids of, 253
serpentina Benth, the alkaloids of, 553
Relaxants, striated muscle, and neurovegetative blocking agents. A study of sublingual absorption, 472
Relaxin, purification of, by ion exchange resins, 206
Reproduction, preliminary studies on the effect of feeding sorbic acid upon the growth, and cellular metabolism of albino rats, 619
Reserpine, analytical methods for, 446
the determination of, by chromatographic separation from pharmaceutical products, 660
determination of, in pharmaceutical preparations, 568
a fluorometric assay of, 657
the identification and determination of, in tablets, 408
preparations, the chromatographic analysis of, 640
Resins, purification of relaxin by ion exchange, 206
Riboflavin, determination of, by light absorption and polarographic methods, 344
Riboflavin-5′-phosphate, synthetic, 1
Rosin, tests for, in official pharmaceuticals, 150
Rye, the parasitic growth of *Claviceps purpurea* on, and its relation to alkaloid formation, 741

S

Saccharin-cyclamate, mixture, a taste panel study of, and of its components, 442
"off-taste," a taste panel study of the, 353
Salicylamide in man, a note on serum levels and excretion of, 384
Salicylic acid, determination of, and two metabolites in plasma and urine using fluorimetry for directly measuring salicyluric acid, 142
Salicyluric acid, determination of salicylic acid and two metabolites in plasma and urine fluorimetry for directly measuring, 142
Sapogenins, steroidal. XXV. Survey of plants for steroidal sapogenins and other constituents, 438
Saponins, the, of *Pachyrhizus erosus* (L) urban, 38
Secobarbital sodium, solid, tautomerism in, 617
Seeds of *Pyrularia pubera* Michx, a pharmacological investigation of the, 247
Texas plantago, further studies of, 100
Serum levels, a note on, and excretion of salicylamide in man, 384
Shelf life, the effect of, on the potency of complex multivitamin preparations, 263
Silver nitrate, buffered ophthalmic solutions of, 25
Skin, a preliminary note on the absorption of sulfur and the polythionates into intact, 383
Smooth brome ergot, the pharmacognosy of, 480
Sodium carbonate, dihydroxy aluminum, the preparation and properties of. V. Studies on antacids, 219
carboxymethylcellulose, determination of, 533
carboxymethylcellulose, a nonaqueous titration assay for, 759
cycloheptenylethylbarbiturate, essential elimination of, (Medomin®) in rabbits, 221. Correction, 520
lauryl sulfate, the *in vitro* effect of, pentobarbital on vaginal pathogens, 245
radio-iodide (I^{131}), the assay of, used for medicinal purposes, 631
radio-iodide (I^{131}), the determination of iodide-iodate activity in, by automatic scanning of paper chromatograms, 107
secobarbital, tautomerism in solid, 617
solutions, polyethylene glycol 400 as a stabilizing solvent in parenteral, 296
Sols, gelatin, a study of the reproducibility of viscosity determinations using, 164
Sorbic acid as a fungistatic agent for certain pharmaceutical preparations, 85
Solvent, stabilizing, in parenteral pentobarbital sodium solutions, polyethylene glycol 400, 296
Solvents, nonaqueous, a note on the use of Amberlite® IRC-50 for the purification of, 61
Sorbic acid, preliminary studies on the effect of feeding, upon the growth, reproduction, and cellular metabolism of albino rats, 619
Spectra, ultraviolet absorption, of antihistaminic agents, 762
Spectrophotometric assay for aureomycin hydrochloride, 215
assay, for terpin hydrate, 666
determination of the principal alkaloids of opium, 156
Spray, compound ephedrine N. F., the stability of ephedrine in, 526
Stability of ascorbic acid in various liquid media, 241
characteristics Bacitracin II, 704
color, in a liquid multisulfa preparation, I. Prediction of stability in pharmaceutical preparations, 515
of ephedrine in compound ephedrine spray N. F., 526
an evaluation of the, of buffered erythromycin ointments, 7
of neomycin in several pharmaceutical preparations, 275
prediction of, in pharmaceutical preparations, I. Color stability in a liquid multisulfa preparation, 515
riboflavin-5′-phosphate, 1
silver nitrate, buffered ophthalmic solutions of, 25
a note on, of the B vitamins in solutions crystalline vitamin B_{12}, 254
of solutions of crystalline vitamin B_{12}, effect of thiamine hydrochloride on the, 662
studies in the stabilization of folic acid in liquid pharmaceutical preparations, 34
stabilizing solvent, polyethylene glycol 400 as a, in parenteral pentobarbital sodium solutions, 296
Starch, a note on tablet disintegration with, 16
Steroidal sapogenins. XXV. Survey of plants for steroidal sapogenins and other constituents, 438
Streptomycin, metal chelates of, 261
Striated muscle relaxants and neurovegetative blocking agents, II. A study of sublingual absorption, 472
Strong Cobb and Monsanto tablet hardness testers, comparison and correlation of the, 83
Sublingual absorption, a study of, I. Several factors influencing the rate of absorption, 419. II. Striated muscle relaxants and neurovegetative blocking agents, 472. III. A comparison of sublingual absorption from various tablet bases, 476
Sucrose, interference of, in the plate assay of polymyxin B, 231
Sulfate, sodium lauryl, the *in vitro* effect of, on vaginal pathogens, 245
Sulfur, the absorption of, and the polythionates into intact skin, a preliminary note on, 383
derivatives of *o*-thymotic acid, 747
and the polythionates into intact skin, a preliminary note on the absorption of, 383
Surface tension changes of liquids, the effect of chlorophyllins on various odorants as measured by, 504
determination rapid, using a modified pendant drop technique, 501
Sympathomimetic amines, identification of some, 313
Syrups, the potentizing effect of antimolding agents in, 305

T

Tablet bases, a comparison of sublingual absorption from various, III. A study of sublingual absorption, 476
Tablets compressed, internal flow of granulation during compression, 290
Tablet compression, physics of, VII, determination of energy expenditure in the, process, 223, VIII. Some preliminary measurement of die wall pressure during tablet compression, 494
Tablet disintegration, a note on, with starch, 16
Tablet granulation, measurement of the repose angle of a, 435
Tablet hardness testers, comparison and correlation of the Strong Cobb and the Monsanto 83
Tablet mixture, a physical method for the determination of hyoscine hydrobromide in a, 377
Tablet studies, properties and applications of powdered polysaccharide acids, 112
Tartaric acid salts of piperazine, preparation and properties of citric acid and, 678
Taste panel study of cyclamate-saccharin mixture and of its components, 442
of the saccharin "off-taste," 353; correction, 520
Taste testing of pharmaceutical preparations, a note on the use of triangle design in, 380
Tautomerism in solid secobarbital sodium, 617
Terpin hydrate, a spectrophotometric assay for, 666
Terramycin hydrochloride, VII. The use of some imitation flavors for masking distasteful drugs, 120
Teridax®, studies on the absorption and excretion of a new cholecystographic agent, 69
Tetracycline, a study of parenteral oxytetracycline and, 751
Texas plantago seeds, further studies of, 100
Thiamine, the influence of, on the microbiological assay for vitamin B_{12} with *Escherichia coli* 113-3, 594
Thiamine hydrochloride, effect of, on the stability of solutions of crystalline vitamin B_{12}, 662
Thiazolopyrimidine derivatives, oxazolopyrimidine and, related to the xanthines, 193
Thienyl-β-dialkylaminoethyl ketones, 5-chloro-2-, and related compounds, 717
Thiocaine® and related compounds, corneal anesthetic activity and toxicity of some, 393
Thiomorpholides, arylketones and, in the synthesis of 8-substituted-xanthines, 649
Thiuram disulfides and related compounds, screening some, for acute toxicity and Antabuse-like activity, 756
Thixotropic measurements of bentonite suspensions, 375
o-Thymotic acid, sulfur derivatives of, 747
p-Thymotic alcohol, a note on derivatives of, 316
Tissue storage, relationships between quantities ingested, toxic effects and. DDT vs. wildlife, 22
Titration assay, a nonaqueous, for sodium carboxymethylcellulose, 759
curves, preparation and, properties and applications of powdered polysaccharide acids, 109
potentiometric, visual and, of boric acid, 370
Titrimetry, nonaqueous, the application of, to the determinations of cholic, desoxycholic, and dehydrocholic acids, 529
Tolerance to analgesics, a quantal method for the study of, 601
Toxic effects and tissue storage, relationships between quantities ingested. DDT vs. wildlife, 22
Toxicity, acute, screening some thiuram disulfides and related compounds for, and Antabuslike activity, 756
and chemistry of 11-desmethoxyreserpine, (Raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate) an alkaloid from *Rauwolfia canescens* I, 688
corneal anesthetic activity and, of some alkoxy analogs of Thiocaine® and related compounds, 393
testing, a collaborative study on the use of mice in acute, 11
oxypyrimidines, 56

uracils, 56
Toxic principles of *Hippomane mancinella* L., investigation of the. II. Preliminary isolation of a toxic principle of the fruit, 361
Toxicological studies, further, with Ilotycin® (erythromycin, Lilly), 199
Toxicology, micro-, 54
the chronic oral, of the polyethylene glycols, 27
Triangle design, a note on the use of, in taste testing of pharmaceutical preparations, 380
1,1,1, - Trichloro - 2,2 - bis (*p* - chlorophenyl) **ethane,** *see* DDT, 22
Tricyclamol, some pharmacological properties of, a new anticholinergic agent, 160
3,4,5-Trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate, an alkaloid from *Rauwolfia canescens*, toxicity and chemistry of 11-desmethoxyreserpine, (Raunormine), 688
Tumor-growth retarding agents, N-bis (β-chloroethyl)amino acids and related compounds as, 132
Turpentines, composition of gum, of pines, XXIII, 186, XXIV, 424

U

Ulcers, gastrointestinal, effect of carbonic anhydrase inhibitors and antacids on the development of, during treatment with depot-histamine. A preliminary report, 123
Ultrasonic waves, a study of emulsification with, I, 487, II, 490
Ultrasound, focused, some chemical effects of, on glutathione and other compounds, 234
Ultraviolet absorption spectra of antihistaminic agents, 762
Uracil, central depressant properties of, and related oxypyrimidines, 56
Uracils, anticonvulsant activity of some, and related compounds, 550
the synthesis of, as anticonvulsants, 545

V

Vaginal pathogens, the *in vitro* effect of sodium lauryl sulfate on, 245
Vanillin, the blood level determinations of PAS and isoniazid with, 182
Vanillamidine hydrochloride hemihydrate, a note on the preparation of, 580
Veratrum alkaloids, paper chromatography of several, 543
Vernonia altissima, the isolation of three inositols from, 308
Vinca minor, isolation of an alkaloid from, 330
Virucidal agent, iodine as, 177
Viscosity determinations using gelatin sols, a study of the reproducibility of, 164
Vitamins
B, in solutions, a note on stability of the,—crystalline vitamin B_{12}, 254
Vitamin, complex multi-, preparations, the effect of shelf life on the potency of, 263
Vitamin B_2, *see* riboflavin-5'-phosphate, 1
Vitamin B_{12}, countercurrent analysis of, 577
Vitamin B_{12}, crystalline, effect of thiamine hydrochloride on the stability of solutions of, 662
Vitamin B_{12}, crystalline—a note on stability of the B vitamins in solutions, 254
Vitamin B_{12} with *Escherichia coli* 113-3, the influence of thiamine on the microbiological assay for, 594
Volatile oil, composition of the, from *Chamaecyparis lawsoniana* stump heartwood, 535
composition of the, from the foliage and terminal branches of western juniper, 87

W

Waves, a study of emulsification with ultrasonic, I, 487, II, 490
Western juniper, composition of the volatile oil from the foliage and terminal branches of, 87
World Health Organization recommended international non-proprietary names, 387; correction, 520

X

Xanthines, oxazolopyrimidine and thiazolopyrimidine derivatives related to the, 193
8-substituted-, arylketones and thiomorpholides in the synthesis of, 649

Y

Yohimbine, crystallographic data for, 414

INDEX OF NEW AND NONOFFICIAL REMEDIES

Acetyl Sulfisoxazole.—Gantrisin Acetyl, October IV
Aminopterin Sodium, December V
Amodiaquin Hydrochloride.—Camoquin Hydrochloride (Parke, Davis), January IV
Benoxinate Hydrochloride.—Dorsacaine Hydrochloride, October IV
Carbinoxamine Maleate.—Clistin Maleate, October IV
5-Chlorosalicylanilide, February II
Cyclopentolate Hydrochloride.—Cyclogyl Hydrochloride, November IV
Cycrimine Hydrochloride.—Pagitane Hydrochloride (Lilly), March VII
Dextro Amphetamine Sulfate, U. S. P., November IV
Diatrizoate Sodium, December VI
3,3'-Dichlorosalicyanilide, February II
5,4'-Dichlorosalicyanilide, February II
Diphemanil Methylsulfate.—Prantal Methylsulfate (Schering), February II
Ethromycin Gluceheptonate.—Ilotycin Glucoheptonate, October VI
Erythromycin Lactobionate.—Erythrocin Lactobionate, October VII
Estradiol Cyclopentylpropionate, February III
Erythromycin Ethyl Carbonate.—Ilotycin Ethyl Carbonate, November V
Hydrabamine Penicillin G, November VI
Hyphylline, December IV
Lente Insulin, November V
Lututrin, December IV
Oxytetracycline-Polymyxin B.—Terramycin Hydrochloride with Polymyxin B Sulfate (Pfizer), February IV
Piperazine Citrate, December IV
Piperazine Tartrate, December V
Poliomyelitis Immune Globulin (Human), November VI
Protoveratrine A and B Maleates, December VI
Stanolone.—Neodrol (Pfizer), February IV
Tetracycline.—Tetracyn (Pfizer), February IV
Tetracycline Hydrochloride.—Achromycin Hydrochloride (Lederle).—Tetracyn Hydrochloride (Pfizer), January IV
Tolonium Chloride.—Blutene Chloride (Abbott), January V
Vibesate, December V
Viomycin Sulfate.—Vinactane Sulfate (Ciba), March V
Zinchlorundesal.—Salundek (New) (Wallace & Tiernan), February II

Rec'd_____ No._____
(DO NOT FILL IN) (DO NOT FILL IN)

Application for Active Membership in the American Pharmaceutical Association

Approving of its objectives, I hereby apply for ACTIVE MEMBERSHIP in the *American Pharmaceutical Association* and I enclose $15.00 to cover annual dues for the twelve-month period beginning with the month following my election to membership. Six dollars of the dues is for a year's subscription to the *Journal of the American Pharmaceutical Association,* which is published monthly in two editions, *"Practical Pharmacy Edition"* and *"Scientific Edition."* Annual subscription to the *Journal of the American Pharmaceutical Association* for nonmembers is $5.00 for the *Practical Pharmacy Edition,* $6.00 for the *Scientific Edition* or $10.00 combined.

Name in Full: Miss / Mr. / Mrs. _____
(PLEASE PRINT OR TYPE NAME AND ENTIRE APPLICATION IF POSSIBLE)

Street and No._____ City_____ Zone____ State_____

Date of Birth_____ Of what State Pharmaceutical Assn. are you a member?____
(STATE)

Graduate of_____ Year_____ Degrees_____
(INSERT NAME OF COLLEGE)

Registered Pharmacist in_____
(INSERT NAMES OF ALL STATES IN WHICH REGISTERED)

Please indicate by check mark below your classification or classifications according to present employment:

____Retail Pharmacist (R)	____Representative (Rp)
____Hospital Pharmacist (H)	____Research or Control Chemist (Rcc)
____Government Pharmacist (G)	____Association Official (A)
____Teacher (T)	____Student (S)
____Wholesaler (W)	____ ____
____Manufacturer (M)	____ ____ (OTHER)

Signature of Applicant_____

This application is endorsed by the following members of the *American Pharmaceutical Association:*

Name_____ Name_____

Please send this application with check or money order for $15.00 to:

ROBERT P. FISCHELIS, Secretary,
American Pharmaceutical Association
2215 Constitution Avenue N. W., Washington 7, D. C.

M_____
CO_____
C_____
CIR_____